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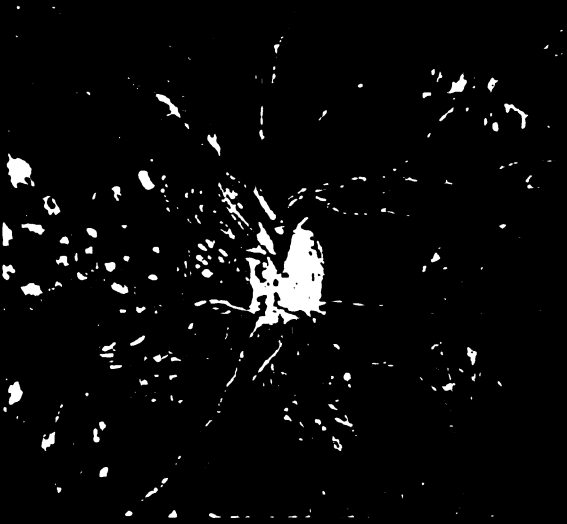
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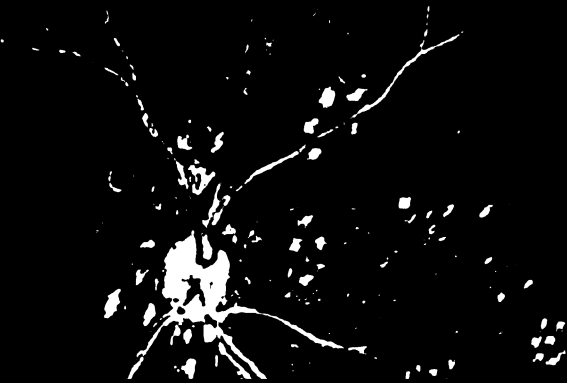
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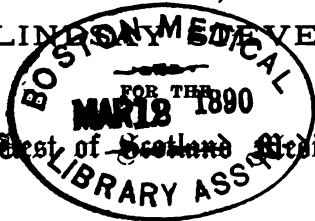
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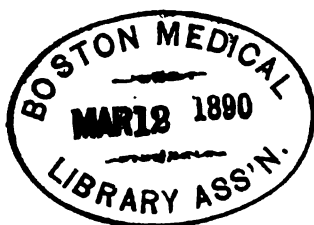
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ORIGINAL ARTICLES.

SOME FIJIAN DRUGS AND METHODS OF TREATMENT.

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THE materials for this paper were gathered on various occasions during many official excursions in different parts of Fiji, and in bringing under your notice an account of some Fijian drugs and methods of treatment, in cases of sickness, I would mention that great difficulties obtain in the way of gaining an accurate knowledge of these matters.

Highly superstitious as the Fijians are and were, as many of their old beliefs and explanations of natural phenomena show, it is to be expected that the means of curing disease, being the exclusive possession of a certain class, should be diligently guarded from the vulgar ken. These means were mostly herbs; the monopolists the *vu ni wai*. The latter are the leeches of Fiji, the old women to whom have been entrusted the secrets of the craft, and by whom they are handed on to those who are to follow after them. Each *vu ni wai* gathered the plant herself, and, extolling its virtues, prepared the nostrum, giving it to the patient with cunning and mysterious ceremonials. This begat awe and fear, and this, among a credulous people, naturally gave power. The remedies, being usually given in the fluid form, were called *wai ni mate*, or water of sickness, and, even to the present day, all medi-

cines, such as pills, powders, ointments, &c., prescribed by European doctors, are known to the natives by the one name *wai ni mate*. The term *vu ni wai*, the name given to the herbalists, is usually stated to mean the root or origin of water, but this translation is undoubtedly wrong, for though there is certainly a word *vu* in the Fijian language meaning root, source or origin, the *vu* in the above phrase is a different word; it is, I believe, a shortening of the word *vuku*, which means wise, the phrase originally being *vuku ni wai*, wise of or concerning water, but in the process of time has become shortened to *vu ni wai*, the *ku* of *vuku* being dropped, the word still retaining its old meaning.

Cakabau (Thackombau) erroneously called king of Fiji, had the title *vu ni valu*, translated as root of war in every book I have seen on Fiji. Here again I believe the *vu* is the shortened *vuku*, giving us the meaning, wise concerning war. So also *vu ni volu*, a scribe, clerk, or book-keeper, does not mean the root of books, but one wise concerning books. I make no apology for this digression, as I think it necessary for the elucidation of the term *vu ni wai*. Had the Fijian wanted to imply root or source, he would have used the word *mata*, as, for example, the sunrise, the source or beginning of day, is called *mata ni saga*; *mata ni wai*, the source of water, or a spring. The *vu ni wai*, then, were those who were wise concerning water, in other words, those skilled in drugs.

It was, however, in the procuring of abortions that the reputation of the *vu ni wai* was made, and their power assured, everything in connection with the process being kept a profound secret. As many of their patients were young girls who had committed certain indiscretions, and, by Fijian law, the mother and her bastard child were treated with contempt and sometimes exiled, it was necessary that the product of conception should be removed before the mother's condition aroused suspicion. Some of the names given to those children born out of wedlock sufficiently indicate the disgrace remaining with them. They were called children of the pathway (*luve ni sala*), children of theft (*luve ni butako*), children without a father (*gone sa siga na tamadra*), and others of a grosser nature; these had no tribal rights, though belonging to a tribe they were not of it. Naturally then, an unmarried girl, finding herself pregnant, sought the aid of the *vu ni wai*, and propitiating her with gifts submitted herself to treatment. The production of miscarriages was not, however, confined to the unmarried, for, according to old custom, a wife, after confinement, was separated sexually from her husband for about

two years, during which time she was suckling her child, and the finger of scorn was pointed at her had she children oftener than once in about three years. Adultery in the male was then punished with death, and this, together with the long sexual separation (even with polygamy), and the degraded condition of the "children of the pathway," brought about a state of matters not difficult to imagine. But, *tempora mutantur omnia*, a people once heathen have embraced Christianity; once cannibals, they have become civilized; once wild and warlike, they are peaceful law-abiding subjects of our Queen.

Old beliefs and customs are things of the far away past; old legends and stories, told round the fire, and handed down from generation to generation, are fast becoming lost. And so with other things. Many old methods of treating disease have been abandoned and forbidden, and the causing of abortion is of course illegal. The *vu ni wai*, however, still flourish, gather their herbs, physic their patients, keep their secrets—but, being women, strange to say, they know how to keep them.

Fearful of losing their means of living, nervous of their reputation, superstitious, and trusting in the marvellous powers of their strange drugs, it is little wonder that they are suspicious of intruders in the domain of their *materia medica*.

Well known to all the natives of Polynesia, the *Yagona* (yangona) plant, *Piper methysticum*, N. O. Piperaceæ, has always been especially valued by the Fijians, and although not strictly a native medicinal plant, it has recently been used in the treatment of gonorrhœa. This plant sometimes attains the height of 6 or 8 feet, though that is uncommon; it has a jointed stem, and large cordate leaves. From this herb is prepared the national beverage of the Fijians, without which no ceremonial would be complete. The part used is the root and the lower extremity of the stem, and it may be either green or dried. To prepare the beverage, the root is either chewed, pounded, or grated, but the former is the most usual method. Young men or women are chosen with good sound teeth to chew the root, the mass being then placed in a large wooden bowl, specially kept for the purpose, called a *tanoa*, water is added, and the mass mixed; the fluid is then strained through the fibres of the *vau* (various species of *Paritium*, N. O. Malvaceæ) till there is little or no sediment. All through the process of mixing and straining a sort of chant is kept up, the accompaniment being the beating of two sticks on a hollow piece of wood. The natives all sit round the

tanoa, and when the *yagona* is ready, the server takes a small bowl made of the cocoa nut shell and advances to the maker of the brew; the latter fills it by means of the strainer dipped in the fluid and squeezed into the cup; this is then given first to the person of highest rank present, who drinks the cup empty and spins it on the floor; the people around clap their hands and call a *maca* (it is empty), the person who has drunk saying *bula bula* (your health), and so on with all present. After the bowls have been used for some time they become beautifully enamelled and coloured inside, and I have in my collection several excellent specimens. The liquid has the appearance of cold tea with a little milk in it; its taste is aromatic and slightly astringent, leaving a dry, clean feeling in the mouth. I have gone somewhat in detail into the process of making the *yagona*, or grog as it is commonly called, to show that the natives drink it when freshly prepared; if allowed to stand any length of time it ferments and becomes sour, and is not fit for drinking. In books, *kava kava*, or *yagona*, is usually mentioned as being a fermented drink, which is a mistake. *Yagona*, when taken for any length of time and in large quantities, is said to cause skin affections and weakness of the eyes. It is a powerful diuretic, and probably for this reason, and its slight astringency, has been used in the treatment of gonorrhœa. In this affection, however, it often does more harm than good, by increasing, instead of lessening, the discharge. Indeed, in healthy men I have seen a discharge resembling gonorrhœa brought on simply by the drug, the discharge stopping on discontinuing it, and I have known of many cases of gonorrhœa, in which, after being cured by ordinary injections, the discharge has reappeared on prescribing *yagona*. This drug has peculiar intoxicating properties, the green root being more active than the dried. When drunk in large quantities by those accustomed to its use, it is said to cause temporary loss of power of the lower limbs, but produces no head symptoms; in those unaccustomed to its use it causes slight giddiness and a feeling of nausea, and in larger doses there is sometimes difficulty in maintaining equilibrium, cold sweats, and prostration. These symptoms are, however, transitory, and are relieved by vomiting, rest in the horizontal position, and by stimulants. The drug is said by old settlers to cause Elephantiasis arabum, and this disease being very common in Fiji may be the reason for the theory, but they have, of course, no connection as cause and effect.

Elephantiasis græcorum, or true leprosy, the *vuka vuka* of

the Fijians, is not uncommon in these islands, and in past times a sufferer from this terrible affection was shunned by his friends, and often expelled from his town to live alone in the bush. The treatment adopted was one of the most agonising that can be imagined, and a patient who submitted himself to the process had, indeed, little prospect of recovery. A house was built in an unfrequented spot, and thither the affected man was taken and stripped naked. A fire was made with the wood of the *Sinu gaga* (*Excœcaria agollocha*, N. O. Euphorbiacæ), and the leper bound and hung up to a cross beam head downwards over the fire. The doors were closed, and the patient left alone. Cries and shouts and groans told of the agony endured, till syncope or coma hushed the sound. When the smoking process was over the leper was taken down, a thick whitish slime which had gathered on the body was scraped off, and deep gashes were made in the flesh with a sharp piece of bamboo till the blood flowed freely. Little wonder, indeed, that death was often the result. That the treatment was, however, sometimes successful is strongly maintained, and it is hardly likely that men would voluntarily submit to such torture without some reason or hope. Dr. Seemann, in *A Mission to Viti*, mentions, upon good authority, a case in which the disease was cured. "At last they take him down—he is faint and exhausted—the operation has been successful—Williami is no longer a leper, but again walks God's earth a healthy man."

The *Sinu gaga* grows in swampy ground near the coast, and sometimes attains a considerable height. On incising the trunk a white juice exudes, which is very irritating to the skin, and if brought in contact with the conjunctiva, produces acute inflammation. Closely allied to the *Sinu gaga* in its irritating properties, though far removed from it botanically, the fruit of the *Kau karo*, or itchwood tree (*Onocarpus Vitiensis*, N. O. Anacardiaceæ), was also used in the treatment of *vuka vuka*. This tree reaches the height of about 60 feet, has large oblong leaves, and a fruit resembling the seed of the walnut; it has the property of causing intense irritation of the skin when handled, and the juice of the fruit acts like a caustic. It was this burning quality of the juice which brought it into notice, and obtained for it a medicinal reputation, and its use was probably of greater antiquity than the smoking process before mentioned. One of the fruits, upon falling to the ground, was picked up and cut in half, and the juice well rubbed into the leprous sores, causing great pain and inflammatory action, resulting, according to old narrative,

in cure. Whether leprosy was really ever cured by the treatment in vogue long ago is exceedingly doubtful, but the methods employed are, I think, very interesting, giving us a glimpse through the mists of time of the marvellous speculations and wonderful theories of bygone ages—the medicine folk lore of the past.

A curious operation of a surgical nature was, until recently, common among the natives for the curing of pains or swellings of the abdomen or chest, upper parts of the thighs, &c. The patient was stripped and laid upon his back, a reed of small diameter was then passed down the penis till the extremity could be felt in the perineum behind the scrotum; this was cut down upon with a piece of sharp bamboo, and the reed drawn through the penis and out at the opening in the perineum. A good deal of bleeding usually followed, which, if not considered sufficient, was increased by drawing the reed backwards and forwards through the wound before removal. The theory of the cure was that by this means blood was drawn from the stomach. For swellings, glandular and other, or pains in the limbs, the Fijians are very fond of using the knife or a sharp piece of bamboo, or burning the part with a lighted stick, and it is no uncommon thing to see numerous cicatrices on their persons from their surgical interference.

An operation of some antiquity is that for the relief of a very common affection—hydrocele. The instrument used is one of the hollow bones from the wing of the flying fox,* fashioned with a point sharp as a needle. With this the sac is punctured, and the fluid allowed to escape, the operation being repeated when necessary.

In the procuring of abortions the following plants were used:—the *Kalakalauaisoni* (*Hibiscus diversifolius*, N. O. Malvaceæ), the *Waki waki* (*H. moschatus*, N. O. Malvaceæ), the *Wa ruti* (*Pharbitis insularis*, N. O. Convolvulaceæ). Of these the parts used were the leaves, strained into water, and given to be drunk. The *Siti* (*Grewia prunifolia*, N. O. Liliaceæ), in addition to being given for abortion, is also used together with the *kasima* for pains in the abdomen. The leaves and small branches are rolled up together and strained in water. The sick person, after drinking, lays down, and some of the infusion is poured on the navel and rubbed in with the hand. Of the *Vasili damudamu* (*Dracæa ferra*, N. O. Liliaceæ), the leaves and outer bark are used. Among the other drugs employed were the *Soni* (*Guilandina bonduc*, N. O. Leguminosæ). The leaves were chewed and the saliva swallowed. If this

* The flying fox is of the family of Pteropidæ, N. O. Cheiroptera, or bats.

failed in causing abortion, an infusion of the root was given. An interesting note about this plant is that the leaves, dried and put into a *saluka*,* with tobacco, are given for the purpose of inducing sexual desire, and they are said to have that effect. The young branches of the *Masawe* (*Cordyline* sp., N. O. Liliaceæ) were pounded up, strained into water, and given to drink; and the leaves of the *vu damu*, one of the *Convolvulaceæ*, were made into an infusion for the same purpose.

As a rule, Fijian women have easy childbirths, but like their sisters in other countries, at times they have difficulties, to relieve which the skill of the *vu ni wai* is sought. In cases where the labour is prolonged and tedious, the leaves of the *valai* (*Etanda scandens*, N. O. Mimosæ) are pounded; an infusion is made, and given in small doses till relief is obtained. The leaves of the *Senitou* (*Hibiscus rosa Sinensis*, N. O. Malvaceæ) are used for a similar purpose, as also are the leaves of the *Lawere* (*Ipomœa pes Capræ*, N. O. Convolvulaceæ). In addition to these, the leaves of the *wa damu* and the inner bark of the *roya* are made into infusions and ordered to be taken.

When a child is born in wedlock there are great rejoicings, and the infant is usually rubbed over with turmeric, and the juice of the fruit of the *Lauci*, or candle nut (*Aleurites triloba*, N. O. Euphorbiaceæ), is put into its mouth, that the little stranger may make known his advent by lusty shouts, and there is much giving and receiving of presents. Nothing of importance, in fact, occurs among the natives without feasting and *solevu*.†

In cases where the labour has commenced, and the pains cease or become very slight, the *vu ni wai* prescribe infusions made from the stem and leaves of the *Waki waki* (*Abelmoschus moschatus*, N. O. Malvaceæ) and from the leaves only of the *Sala gato yalewa*. After birth the umbilical cord is severed and tied in the way common in our own country, and if the placenta be retained, eight pairs of the soft stems of the *Gasau* (a species of long reed) are cut about four inches long, pounded up between two stones and strained in water, and the infusion given to be drunk. Should this have no effect, an infusion of the leaves of the *Dani dani* (*Pancex fruticosum*,

* *Saluka* is a cigarette made with tobacco and rolled up in a piece of dried banana leaf.

† *Solevu* means a feast for a special purpose, where there is much giving of presents, such as masi, or native cloth, whales' teeth, yams, taro, &c., and is usually enlivened by dancing and yangona drinking.

N. O. Araliaceæ) is prescribed. The bark of the *Vesi vesi* (*Pongamia glabra*, N. O. Leguminosæ) and of the *Yevu yevu* (*Hernandia sonora*, N. O. Laurinæ) are used if any of the above fail; and in lieu of these latter, the leaves of the *Rorogi* (*Commelyna communis*, N. O. Commelynæ), the *Tavu tavu*, and the *Totodre e vuce*, are cut up into small pieces, and the patient made to drink of the infusions prepared from them.

After the birth of the placenta, the completion of the third stage of labour, to bring about uterine contraction, and possibly to fix matters up generally, an infusion is drunk, made from the inner skin of the bark of the *Mulo mulo* (*Thespesia populnea*, N. O. Malvaceæ), and from the similar part of the bark of the *Saluto Baua Baua*, one of the Urticæ. The newborn child being sometimes unable to suck, the leaves of the *Sovaualevu* are squeezed into water, and the liquid poured down the infant's throat, to enable it to drink freely. The leaves of the red-leaved fig are simply applied to the mother's breast to increase or induce the lacteal flow in those cases where it is scanty or absent.

When, after childbirth, the woman wishes to prevent future conceptions, she is advised to take an infusion in water made from the leaves of the *Dralakaka* (*Exythana ovalifolia*, N. O. Leguminosæ). According to Mark Twain, if I remember rightly, there is a country where barren wives are most prized, but in Fiji matters seem to be different, for here there is a special treatment for inducing fecundity. Infusions are made from the scraped root of the *Bokase* (*Artocarpus* sp., N. O. Artocarpeæ), and from the pounded fruit of the *Cago*, a variety of turmeric. These are drunk by husband and wife after the latter has bathed, and then coitus is to take place, usually in some quiet corner of the bush. It is needless to say that this treatment is repeated frequently.

To establish the flow of blood in cases of suppression of the menses, an infusion is drunk made from the bark of the *Vesi dina*, one of the Leguminosæ; and for the relief of pains during menstruation, the stem and leaves of the *Wa damu*, one of the Convolvulaceæ, are used; the bark is removed, and the outer sappy wood is scraped off, and this, together with the leaves are infused in water.

In a tropical country like Fiji, especially in the low-lying swampy parts, diarrhœa and dysentery are met with, and many drugs are employed for their relief. It is, however, difficult to know exactly what a native means by dysentery, for unless the stools contain blood, the affection is not considered dysenteric, and the Fijian name implies that, *coka dra*,

literally meaning bloody diarrhœa. Cases characterised by frequent small and slimy stools, fever, frequent tormina and tenesmus, and other signs of dysentery, if no blood be present, are classed as *coku wai*, or watery diarrhœa; and in talking to natives concerning these affections, unless one is very careful, mistakes are easily made. For *coka dra*, the barks of the *Kau loa* (*Maba elliptica*, N.O. Ebenaceæ), of the *Yaro* (*Premna Tahitiensis*, N.O. Verbenaceæ), and of the *Molau* (*Melanthesa* sp., N.O. Euphorbiaceæ), are scraped and strained into water, and ordered to be taken several times a day. The leaves of the latter plant are also used for infantile diarrhœa; the mother chews them, and the child is made to swallow the saliva from her mouth. The Taro, or *dalo* (*Colocasia antiquorum* N.O. Aroideæ) is, however, one of the most important of the vegetable productions in the treatment of dysentery, and its value can hardly be over-estimated. It grows on dry or irrigated ground, that is, land over which there is a constant, gentle flow of water, and this is the favourite method of cultivation. It is nutritious and easily assimilated, and forms one of the staple foods of the Fijians.

For *Coku wai*, the leaves of the *Kalabuci* (*Acalypha grandis*, N.O. Euphorbiaceæ) are pounded and strained in water, the fluid being given as often as necessary; and the barks of the *Salato* (*Laportea Vitiensis*, N.O. Urticæ) and of the *Bovu* (*Mussaenda frondosa*, N.O. Rubiaceæ) are scraped and strained in water, but this infusion is specially given in cases accompanied by much abdominal pain. The *Qatima* and the *Denivuuka* are also used in the treatment of diarrhœa.

For the cure of the numerous varieties of ulcers met with on the limbs and bodies of the natives, many drugs are employed. The leaves of the *Kura* (*Morinola citrifolia*, N.O. Rubiaceæ) are simply placed on the sores as a kind of dressing;—when, however, the ulcers are accompanied by pain and swelling, the leaves of the *Yalo* are broken into little pieces, mixed with cocoa-nut oil, and rolled up in a large leaf, then heated and applied to the swollen part, the medication acting like a poultice. In other cases, the root and stem of the *Boko ni gata* are scraped and placed in a piece of cocoa-nut fibre, squeezed into water, and given to drink; the wood is then scraped into a fine powder, and put in a leaf of a variety of banana, the *Vudi wai wai vula*, one of the *Musa*, rolled up like a sheet of music; into this is placed a small piece of lighted fire-stick, and the smoke from the burning powder is then blown through the cylinder on to the ulcer.

The large velvety leaves of the *Sasawera* are used to relieve the swelling of the limbs, the result of lymphatic inflammation, a common affection among the natives; they are mixed with cocoa-nut oil, and rolled up in several layers of banana leaves, tied up, and placed near the fire; when heated sufficiently, this covering is removed, and the hot oily extract is well rubbed into the limbs, giving, so the *vu ni wai* state, great comfort.

Waqaga or rheumatism, is, owing to the exceeding moisture of the climate, a somewhat common disease in these islands, and the oil of the *Dilo* (*Calophyllum inophyllum*, N. O. Guttiferæ) has a high reputation amongst the natives as a liniment. The oil is extracted from the seeds by means of pressure, and has a slight green colour, but unlike cocoa-nut oil, it never congeals at the lowest temperature in Fiji.

For facial neuralgia, the barks of the *Wa lu* (*Raphidophora Vitiensis*, N. O. Aroidæ) and of the *Yaro* (*Premna Tahitiensis*, N. O. Verbenacæ) are chewed, and the saliva gargled about the mouth, and then swallowed, and several other allied plants are likewise employed.

These plants are used in the preparation of Tonga, mentioned in the "Extra Pharmacopœia of 1885."

To relieve toothache, the inner skins of the barks of the *Noko noko* (*Casuarina equisetifolia*, N. O. Casuarinæ) and of the *Drala dina* (*Erythrina Indica*, N. O. Leguminosæ) are boiled in salt water, and, when cool, strained; with this the mouth is rinsed out several times a day.

In the treatment of asthma, the inner skin of the barks of the *Vasa damu* (*Codiaeum variegatum*, N. O. Euphorbiacæ), of the *Bovu* (*Mussanda frondosa*, N. O. Rubiacæ), and of the *Maua maua*, are prepared as infusions; and the leaves of the *De ni ose* (*Euphorbia pilulifera*, N. O. Euphorbiacæ) are boiled in water, strained through cocoa-nut fibre, and given to drink.

The Fijians, like all the South Sea Islanders, are great fishers, much time being given both by men and women to the business or amusement, and many are the different methods employed in capturing the inhabitants of the deep. Baited hooks are commonly used, both lines and nets being made from the bark of various species of *Vau*, N. O. Malvacæ, and are very strong and durable. The Tongans make the body of their hooks from mother of pearl, the pointed part and barb being of tortoise-shell, and a hook fashioned thus, when drawn after a canoe, and glistening as it does in the water, is very luring. The Line islanders make their lines of women's hair,

and I have a Tukulou fishing line, 20 fathoms long, of plaited hair. The Solomon islander, fitting an arrow to his bow, hides behind the reeds on a river's bank and kills the fish as they swim past him, or wading in the water, spears them.

It would, however, be out of place in this paper to describe all the Fijian tricks for catching fish, the construction of the fish fences, or the different ways of using the nets, all very interesting, but the following is somewhat curious. At low tide large pools of water are left in the hollows of the coral reefs, and a strange yet simple method is adopted for taking the fish. The fruit of the *Vutu raku raku* (*Barringtonia speciosa*, N. O. Myrtaceæ) is broken up, or the stem and leaves of the *Duvagaga* (*Derris uliginosa*, N. O. Leguminosæ) are pounded, and one or other of these is drawn through the water several times; the fish are stupified, turn on their backs, and float motionless on the surface, and of course are easily caught. If the fish be put back in water, they soon recover and appear none the worse, swimming about as if nothing had happened. I have often watched the natives catching fish through the use of these drugs, and there is no danger (though naturally expected that there might be) in eating fish so caught.

In Fijian waters there are, however, several species of fish which, when eaten, produce alarming symptoms, pain in the stomach and bowels, vomiting and purging, irregular pulse, swelling of the face and limbs, &c., the symptoms resembling those of mushroom poisoning. The treatment consists in giving watery extracts, made from the leaves of the *Voi voi* (*Pandanus caricosus*, N. O. Pandanææ), and from the leaves of the *Totondro*; these the natives say act as specifics.

Not indigenous to the country, and but recently introduced, the *Oleti* or Papaw tree (*Carica papaya*, N. O. Papayacæ) was not used by the *vu ni wai* in the treatment of disease, though it has curious medicinal properties, the juice, leaves, and fruit having the power of making tough meat tender, and the leaves have saponaceous qualities. The fruit boiled, closely resembles in taste vegetable marrow, and forms an excellent dinner vegetable, and is valuable in the treatment of dyspepsia. The unripe fruit, sliced and baked in a pie, with the addition of cloves and sugar, can hardly be recognised from apples, and it makes a perfect substitute for apple sauce.

Perhaps one of the commonest affections among the natives is *cika*, or ophthalmia, a disease much more abundantly met with in the drier parts of the group. The most usual variety is that where the ocular and palpebral conjunctiva are deeply injected, and there is a thick, sometimes stringy, yellowish

discharge. At times, and this usually in an epidemic form, granular ophthalmia is developed, and the purulent variety is not uncommon. The treatment consists in keeping the eyes clean, and dropping into them the juice squeezed from the leaves of the *sorua*, one of the india-rubber plants. Another favourite eye lotion is prepared by scraping the inner bark of the *Bule*, placing the soft stringy mass in cocoa-nut fibre, and squeezing the fluid into the eyes. From the use of both of these drugs I have seen excellent results, and have often, in places "far from the madding crowd," had occasion to use them.

For the relief of difficulty in micturition, an infusion made from the leaves of a variety of *Hibiscus*, N. O. Malvaceæ, and of the *Dali dali*, is said to be the most efficacious.

From time immemorial, the practice of Massage has been known to the Fijians, from whom the Samoans first, and then the Tongans, learned the art. The process consists in rubbing and kneading the part, the operation being sometimes continued for hours; it stimulates the circulation and relieves pain, and is commonly used in abdominal disease. The old native doctors have great faith in massage, and it is commonly practised by them.

Such, then, are a few of the numberless drugs and methods of treatment employed by the *Vu ni wai* in this out of the way corner of the world. I had intended referring to the poisons used in the old days, the strange ways of causing death by bewitchment, and the curious burial customs of the past, but I hope to make them the subject of a future paper.

ANOMALOUS FORMS OF MEASLES AND SCARLET FEVER.

By J. WALLACE ANDERSON, M.D.

(Being the Introduction to a Discussion in the Medico-Chirurgical Society on 7th December, 1888. See page 47.)

I HOPE that members have noticed that this is to be a conversation, and that they will not expect anything either very formal or very formidable from me. The cases, it will be observed, are few, and necessarily unequal, for there are only three to illustrate two diseases—two of measles, and one of scarlet fever. I propose to take them in that order.

The interesting feature in the two former was that they were

cases of measles without catarrh, with a rash peculiar in its appearance, in its time of appearing, and in its sequence. The peculiarity in the case of scarlet fever was that it was without fever, without rash and without throat symptoms, as far as could be made out. It was a case of malignant scarlet fever that could only be diagnosed by cases of scarlet fever occurring shortly before and shortly after.

The two cases of measles were very much of the same kind. The one was in a boy aged 4 years. On the Saturday (13th October, 1888), his brothers and sisters noticed that he was rather cold and pale looking. On the Monday (third day) about midday he said he wanted to be put to bed as he was very tired; but there was absolutely no coryza. The only clue was that I had recently attended this boy's brother for ordinary measles. On the Tuesday (fourth day) patient was in the same condition; that is, up and down. On the Wednesday (fifth day) he was decidedly better, but at night he was hot and restless. On the Thursday (sixth day) the fever was still high, but no spots. On the Friday (seventh day) I was called in and found him in a very high fever (temperature not taken), face flushed, pulse 132, but no symptom of catarrh. (This was carefully looked for, as his brother had only recovered from ordinary measles a week before.) There were only a few faint spots on the face; not patches. On the Saturday (eighth day) the fever was still very high, causing a great deal of oppression, and making me very anxious. There was no delirium or stupor; pulse, 130. The rash on the face was rather more distinct, but still only scattered spots; none on the chest; a few on the back and on the back of the hands. On the Sunday (ninth day) he was easier; pulse, 120. The rash pretty well out on the back and legs but not on the chest. On the Monday (tenth day) the rash fainter; tongue cleaning; pulse, 120. The patient went on improving daily. No sequelæ.

For the second measles case we have to go back to the last day in 1885. This was the first case of measles in this family for several years. A little girl, aged $6\frac{1}{2}$ years, about 6 P.M., was dressed for a children's party, but suddenly became so ill that her mother saw that the party must be given up, and she quite willingly went to bed. Next day (New Year's Day) the child was a good deal better, and the mother went from home. On the third day (Sunday) the child was at church, but the nurse remarked that she was out of sorts in the evening. On the fourth day she was better and out playing. Her eldest sister noticed "heat spots" on the face and chest. She

continued apparently well till the eighth day, when she seems to have been once more rather poorly. On the ninth day (Saturday) she was worse, and when her mother came home she saw at once that the child was very ill. She observed blotches over the lower part of the body and on the legs. The blotches looked as if "under the skin," she said. She put the child in a hot bath, and the rash was brought out very much by that. I saw the child in the evening, and called it "German measles." There was no coryza whatever, nor had there been. On the tenth and eleventh days the rash was more abundant. The fever, as in the first case, was very high, and I was very anxious for two or three days on that account. There were no catarrhal complications, nasal or bronchial. On the twelfth day the rash was now out on the face. Otherwise the case was the same. On the thirteenth day (Thursday morning) the crisis occurred. There was a little perspiration, and the temperature came rapidly down. Gradual improvement followed without complications or sequelæ. A few days later three younger sisters took measles in the ordinary form.

As regards the case of malignant scarlet fever, I remember very well a few years ago seeing the little boy, about six years of age, in his uncle's company on a Saturday afternoon at a football match, being then in perfect health. I only saw the boy once again, about forty-eight hours later, and within an hour of his death. On Sunday night he was noticed to be a little peculiar, and during the night there was some little want of control over both bladder and bowels, a thing unknown before. On Monday I was sent for, but happened to be out of town, and did not get home till six o'clock in the afternoon. When I got there, I saw the boy was dying. He was quite conscious, but I never saw a more perfect condition of collapse. The face pale and pupils widely dilated. The boy died in about three-quarters of an hour after my arrival. No fever, not a single throat symptom or rash had been observed. It first of all crossed my mind that the boy had been poisoned. Then it occurred to me that it might be malignant scarlet fever. It appeared that the boy's uncle and aunt and family had been at Helensburgh for a month, and I found on careful inquiry that two of the child's little cousins had been ailing there, but they had not sent for any doctor. On examining them I thought I saw a little desquamation at the finger nails. Just four or five days afterwards, however, the youngest of the family, a child of about two years of age, became

ill with ordinary scarlet fever, and the other two children exhibited the desquamation more distinctly. This obviously was a case that could never have been diagnosed with certainty unless corroborated by other cases.

As regards the measles cases I may remark that it is held, at least in principle, that you cannot have measles without catarrh. Gairdner taught that in his lectures, and Trousseau, speaking of the catarrh, said it was "the essential prodromal phenomenon of measles." *Morbilli sine catarrho* has no doubt been described, but it is always held that in these cases our test for measles is wanting, and that it may be German measles, or something else equally non-protective against a similar attack, or against any attack of true measles. Here there had been no catarrh, yet we must consider them cases of genuine measles. Again there was the late appearance of the rash in both cases. We all know how regularly, though not invariably, it appears on the fourth day. The sixth or seventh day is extremely exceptional. Trousseau, referring to a case of measles, remarked, with characteristic candour to his class, "I completely mistook the nature of the disease as the eruption did not appear till the seventh day."

As to the scarlet fever case I can give no further details. It seemed to me like a case of acute irritant poisoning, but the history and the desquamation in the two other children, and especially the unmistakable form occurring a few days later in the youngest child (there were albuminuria, rheumatoid pains, &c.) made the diagnosis certain.

By way of suggesting points for further conversation, I would remark—1st. How often we find very different diseases presenting themselves under common symptoms. For example, it is known that we may have an occasional case of pertussis without the paroxysm—whooping-cough without the whoop, and we would call it ordinary catarrh were it not that whooping-cough was epidemic. Now and then a case of diphtheria presents a doubtful patch, and is only diagnosed from simple acute laryngitis, when weeks afterwards various paralyses set in. And there are cases of enteric fever in children, cases that we are constrained to label "febricula," there being no rash, no diarrhoea, and possibly not even abdominal pain, till we discover that the mischief has sprung from an undoubted enteric centre. And so, as we have seen, there may be cases of measles without catarrh, yet true measles, and therefore protective. Undoubtedly, then, we may often have cases that could never be recognised unless other

unmistakable forms prevailed at the same time in the neighbourhood. 2nd. Diseases tend to express themselves over non-vital areas. I once ventured to call the skin the dust-bin of the poisoned economy. There disease throws out her refuse. In cases of genuine *scarlatina maligna* the poison attacks the vital centres in place of the skin. In the measles cases the eruption came out irregularly and imperfectly, and the fever ran correspondingly high, although there were no true complications. The fever had "gone in," as is said. Next to the skin the mucous membranes seem to be favourite places of attack; for example, the ileum in enteric fever, the throat in diphtheria, and the urinary mucous membrane in scarlet fever.

CURRENT TOPICS.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—At the fourth ordinary meeting of this Society, to be held in the Faculty Library on the 14th inst., at 8 o'clock, the following specimens will be shown:—A specimen of primary tuberculosis of the kidney, with obstruction in the ureter and secondary ulceration of the bladder, by Drs. Gemmell and Newman. A specimen of a brain with considerable atrophy of the right hemisphere from a case of epilepsy where death followed a severe attack of the status epilepticus, by Dr Fraser. A specimen of a pulsating sarcoma removed from the subcutaneous tissue in the gluteal region of a female patient, by Dr. Hector Cameron. A specimen of a vascular sarcoma from the soft parts of the forearm of a male patient, by Professor George Buchanan. The parts removed *post-mortem* from a case in which tracheotomy was performed for pressure on the trachea by a spinal abscess, and where death ensued subsequently from ulceration of the tracheotomy tube through the trachea into the innominate artery, by Mr. Maylard.

On 28th January, a special meeting of the Society will be held for the exhibition of healing and healed pathological lesions. The lesions must be only those the result of natural processes; those which occur after operative interference are not included.

A. ERNEST MAYLARD, *Hon. Sec.*,
4 BERKELEY TERRACE.

J. LINDSAY STEVEN, *Hon. Edit. Sec.*,
34 BERKELEY TERRACE.

GLASGOW UNIVERSITY STUDENTS' REPRESENTATIVE COUNCIL.

—The newly elected council held its first statutory meeting on Monday evening, 17th December last, in the law classroom of the University. The following office-bearers and Executive Committee for the ensuing year were chosen:—*President*, John H. Harley; *Vice-Presidents*, Robert Bell and Alex. D. Blacklock; *Secretary*, Geo. Davidson Kempt; *Assistant Secretaries*, Robert Kilgour, M.A., Wm. Newlands, Alex. Farquharson, and Thos. Binnie, jun., M.A.; *Treasurer*, John Nisbet, M.A. *Executive Committee*—*Divinity*, Daniel Kirkwood, M.A.; *Arts*, A. Levine, J. H. Maclean and Alex. Ralston; *Medicine*, Arthur H. Browne and W. R. Thompson, M.A.; *Law*, A. Fraser M'Rae. The following students and graduates were elected to serve on the Union Committee:—*Students*—Messrs. Allison, Bell, Blacklock, Browne, Farquharson, Harley, Kempt, Kirkwood, M.A., M'Kendrick, M'Laren, M.A., M'Leod, M.A., M'Nicol, M'Rae, Newlands, Nisbet, M.A., Paterson, M.A., Paton, Ralston, Taylor, Warden. *Graduates*—Robert Brown, jun., B.Sc., Joseph Coats, M.D., M. P. Fraser, LL.B., Samson Gemmell, M.D., C. O. Hawthorne, M.B., Rev. Gavin Lambie, M.A., W. S. M'Cormick, M.A., Rev. Alex. Robinson, B.D., J. Lindsay Steven, M.D., Wm. Smart, M.A., C. O. Hawthorne, M.B., to be convener. For the purpose of endowing and furnishing the Union Buildings, it has been arranged to hold a bazaar about Christmas, 1889. The sum aimed at is £10,000, of which the first £7,500 is to be devoted to the Union.

THE RECENT EPIDEMIC OF SCARLET FEVER IN THE WEST END OF GLASGOW.—In the *Sanitary Journal* for November, 1888, Dr. J. B. Russell has given an elaborate and exhaustive report of this epidemic, which made its appearance among many of the best families living in the neighbourhood of the West End Park, all of which got their milk from a common dairy, one of the oldest and most reputable businesses in the trade. Six hundred houses were visited in the district, and of these 92 were supplied from the dairy. Of the 92 families 14 were infected with scarlatina. Among the other 508 only two cases were discovered. Up to date 56 cases had been discovered, and the energy of the epidemic was expended on three days—the 18th, 19th, and 20th October last. An exhaustive account, into which we cannot here follow Dr. Russell, is then given of the mode in which the milk from this dairy was infected, and there can be little doubt that the contagium was derived from the family of the son-in-law of

the dairyman who had charge of one of the branches of the business. "The great lesson of this outbreak," says Dr. Russell, "is the folly of mixing up the milk business with the family life. This business was interlaced with the fortunes of two families of young children in a way which could not have been better devised if the intention had been to make it certain that if disease by any chance entered these families, it was safe to permeate the business."

HOUSING OF THE POOR.—UNSANITARY DWELLINGS IN THE SALTMARKET.—It is a gratifying circumstance that, mainly through the persistent efforts of our Medical Officer of Health, the housing of the poor of Glasgow is now a subject of first-rate importance to all sections of the general public. The matter was fully discussed at the meeting of Town Council held on the 24th December last, on the submission by the Health Committee of the following report:—

"The Medical Officer submitted a set of the original plans and sections deposited with the Improvement Trust Bill in 1865, in which the portions still held by the Trust have been coloured red by the Master of Works; also a copy of the statistics of the mortality for one year which obtained in each of the scheduled areas, produced in support of the preamble. He also submitted the statistics of the mortality for the last six years of the coloured portion of area R, bounded by Trongate, Osborne Street, Saltmarket, and King Street, which showed that the death-rate had been 55·8 in the portion to the north of Prince's Street, and 61·3 in the portion to the south; the death-rate of the original area R having been 40·65. The death-rate of the original area S, to the south of area R, was 44. The Trust still hold the portion fronting Saltmarket from the railway to Bridgegate (except Millar's Place), and along Bridgegate to No. 26. The death-rate of 122 Saltmarket for the last six years was 60; the death-rate under 1 year per 1,000 born in the North Prince's Street block in the last six years was 329; in the South Prince's Street block 310, and in 122 Saltmarket 255. For the same period in the whole city the total death-rate had been 24·5, and the death-rate under 1 year per 1,000 born 149. The committee proceeded to inspect 122 Saltmarket. The buildings on the north of this close are placed back to back with Millar's Place, separated therefrom by a wastage some 2 feet wide, at the bottom of which runs an open drain, the smells from which are much complained of by the tenants. There are very small windows into this wastage, but they admit no light

except in the attic storey; and, in consequence, the rooms abutting on the back wall are all dark and unventilated. The ground houses receive all their light from the front, and the roofs being low, their opposite ends are dark. In the third ground house there is a back room with a wet earthen floor. Rats abound in these houses. In the front tenements, right and left, there are lobbies so dark that it is impossible to discover the doors without artificial light. The roofs of all these tenements admit rain freely, so that the tenants of the attic storeys require to catch the drops in tubs; and the water sometimes reaches the houses beneath, in which a portion of the plaster had fallen during the recent heavy rains and injured a woman. The committee were surprised to find the majority of the tenants so respectable and well provided, and having their houses so clean in such circumstances as those described. It is their unanimous opinion that the houses in this close are uninhabitable, and that these tenements are utterly beyond repair, and should immediately be cleared away."

A long discussion followed, in which the whole question was thoroughly ventilated, and we sincerely trust that the authorities will, without delay, adopt and thoroughly carry out the recommendations of the report. We rather regret the tone which the discussion at one time assumed, and which seemed to indicate that in this matter different committees were acting in opposition to each other. In a matter of this kind—so vitally important as regards the physical and moral welfare of the entire community, rich and poor alike—there should be no feeling of rivalry or antagonism, but a unanimous and cordial co-operation of the entire constituted authority to do away with a great standing evil, and to confer upon the city what all will admit to be a lasting benefit. We can fully accept every statement of the report, for recently we had the opportunity of accompanying Dr. Russell in the course of one of his visits to the "slums" of the High Street, and what we saw during that visit was nearly as bad as anything contained in the report of the Health Committee.

QUEEN VICTORIA NURSES' INSTITUTE.—MEETING IN EDINBURGH.—A public meeting of those interested in the formation of the Scottish Branch of the Queen Victoria Nurses' Institute was held in the Queen Street Hall, Edinburgh, on Monday, 17th December last, and was largely attended by ladies and gentlemen. Lord Provost Boyd was called to the chair. Among those on the platform were:—Lord Trayner,

Right Hon. J. B. Balfour, M.P., Sir Thomas Clark, Bart., Sir Douglas MacLagan, Sheriff Crichton, Revs. Dr. Gray and MacGregor. Sir Thomas Clark intimated apologies for absence from Lord Lothian, Sir Archibald and Lady Campbell of Blythswood, the Lord Provost of Glasgow, Professors Gairdner and Buchanan, Drs. Fleming and Renton, Mr. Gourlay, Glasgow, and others.

Lord Lothian wrote :—"I feel sure that the Institute will obtain substantial support from the people of Scotland. It has a double claim from the occasion and from the circumstances under which the institute has had its origin, and from the blessings which the institute, if its objects can be fully realised, must bring to many poor homes, in which there are sufferers who by care and skilful nursing may be relieved and restored to health. I hope the meeting on Monday may be successful in all ways, and so give help and encouragement to those who are engaged in promoting this most beneficent project."

The Chairman, in opening the proceedings, said the gift of the surplus of the Women's Jubilee Offering by the Queen was not the least of the numerous instances of Her Majesty's sympathy for the poor of the country. The idea of nursing the sick poor in their homes was not a new one, but it pointed to a field of usefulness where incalculable good might result.

Mr. J. B. Balfour, M.P., gave an outline of the inception of the project and explained its objects. He said the amount of the surplus of the Women's Jubilee Offering was £72,588. That sum had been invested in the hands of trustees, and yielded an income of £2,000 a year. This sum, if it had been all devoted to one central institution, would have been not only adequate, but ample. But the recommendation of the committee was that two branches should be formed in Edinburgh and Dublin. Accordingly there was a consideration of what would be a fair division among the three kingdoms. The result was that the sum of £300 a year was allocated to Scotland, and there had since been an addition of another £100 a year to be devoted to providing lectures for the training of the nurses. He might mention that the sum thus given was somewhat in excess to what Scotland would have been entitled to if the allocation had been strictly upon the ratio of population. The institute was not only for the purpose of providing nursing of the sick poor in their own homes, but there was an important and necessary step towards that end. It was also directed to providing nurses of a high class, and accordingly there had been laid down by the

governing body in London certain standards of qualification which all who desired to work under the institute must attain. The committee had already been selecting a lady superintendent in the person of Miss Peters, presently the head of the Sick Children's Hospital in Edinburgh. It was hoped that as funds increased Homes would ultimately be formed in the cities and towns in the country, and these would be supplied with staffs from Edinburgh. It was calculated that about £700 a year would be required at present, and if the work was to receive the enlarged extension which they hoped it would, the revenue would need to be greatly augmented. Upon that vital question the committee in Scotland had already had the most encouraging signs, having already received nearly £1,100, and promises of annual subscriptions of somewhere about £160. The project had the appreciation of Miss Florence Nightingale, a letter from whom to the president of the Scottish branch, Lady Rosebery, he asked permission to read. Miss Nightingale said that to ensure the highest success the highest training of nurses was required, and to nurse the sick poor at home was the highest branch of nursing. The home, in her idea, must be, not a lodging, but a home where the district nurses had everything needful provided for them, where they had not to "fend" for themselves, but had all their health and strength and wits set free for their most responsible charge among the poor. All existing institutions were working up to this higher standard, and would doubtless join hands in helping each other to reach it, so as to be worthy of the poor, of the sick, of the Queen, the mother of us all.

Sir Douglas MacLagan, M.D., moved the first resolution, as follows:—"That the meeting hails with satisfaction the establishment of the Scottish Branch of the Queen Victoria Nurses' Institute to provide highly qualified nurses for the sick poor in their own houses throughout the country." He said that during a professional career extending over half a century nothing was more noticeable than the improvement which had taken place in the matter of nursing. The nurse now was a strong staff upon which the medical man might rest with assured confidence and trust.

Professor Annandale seconded the resolution, which was adopted.

Lord Trayner moved—"That this meeting resolves to give its hearty support to the Institute, and to recommend it to the support of the public."

Rev. Dr. Macgregor seconded the resolution, which was also carried.

Sir Arthur Mitchell having moved a vote of thanks to the chairman, the proceedings terminated.

Our readers will agree that the Queen Victoria Nurses' Institute, of the formation of the Scottish Branch of which we have just given an account, is an organisation worthy of all support, both lay and professional. It will be seen from the report that a main object of the Institute is "for the purpose of providing nursing of the sick poor in their own homes," and it must be a source of gratification to the inhabitants of Glasgow to know that during the last 13 years earnest attempts have been made, through the charitable enterprise of our citizens, to accomplish this most laudable work. The nursing of the sick poor is one of the chief objects of the Glasgow Sick Poor and Private Nursing Association, founded in 1875 by Mrs. James S. Higginbotham, and this department of the Society's work has gone on increasing year by year, until in 1887 the number of cases treated was 1,477. There are now 14 districts of the city in which a nurse labours from 10 A.M. till 5 P.M. It is gratifying indeed to know that in charitable, as in commercial and scholastic matters, our city holds its own.

REVIEWS.

The Anatomie of the Bodie of Man. By THOMAS VICARY. The edition of 1548, as re-issued by the Surgeons of St. Bartholomew's in 1577. *With a Life of Vicary, Notes on Surgeons in England, Bartholomew's Hospital, and London, in Tudor Times, an Appendix of Documents and Illustrations.* Edited by FRED. J. FURNIVALL, M.A., Hon. DR. PHIL, and PERCY FURNIVALL, a student of St. Bartholomew's. Part I. London: Published for the Early English Text Society. By N. Trübner & Co., Ludgate Hill. 1888.

To few of our readers will the name of Thomas Vicary recall the fact that he was the author of the first English work on anatomy, and a man who occupied in his day a most distinguished position in our profession.

Born in Kent somewhere between 1490 and 1500, Vicary practised for a time in his native county, at Maidstone, but he seems very soon to have settled in London, where in 1525 he was Junior Warden of the Barbers' or Barber-Surgeons' Company. At an early age he received promotion, for in 1528 he

was appointed one of the surgeons to Henry VIII, in 1530 Master of the Barber-Surgeons' Company, and in 1535 in reversion after the death of Marcellus de la More, Sergeant of the Surgeons, and Chief Surgeon to the King. This position Vicary continued to hold under Edward VI, Queen Mary, and Queen Elizabeth, till his death in 1561 or 1562. As the acknowledged head of his profession at the amalgamation of the Barbers' and Surgeons' Companies in 1541 he was elected the first Master of the combined companies, an office which he held on five separate occasions, the last being in 1557.

When Henry VIII handed over Bartholomew's Hospital to the City of London, Vicary was appointed Chief Surgeon, and one of the Governors, and soon after he became Resident Surgical Governor, appointments which he held throughout the remainder of his life. It is presumed that he took a prominent share in the organisation of the Hospital, and in the production of the "Ordre for Barts" in 1552, to which we shall have occasion to allude below.

In 1548, he published his *Anatomie of the Bodie of Man*, the first work in English on that subject. No copy of that edition is now extant, and the reprint which lies before us is from the second edition published by the Surgeons of St. Bartholomew's in 1577, of which only one copy is now known to exist.

These brief notes of the life of Vicary are extracted from the *Foretalk* of this volume of the Early English Text Society, who, in the second part, to be published in 1889, promise a more complete life of the author. They are, however, sufficient to indicate that Vicary must have been a prominent figure in the medical world of his time.

Only a small part of the present volume is occupied with the reprint of Vicary's work, 86 pages out of 336 sufficing for that purpose. The first chapter is introductory. After defining surgery, he tells us how a surgeon should be chosen, and with what properties he should be endued. "A chirurgion should be chosen by his complexion, and his complexion should be very temperate, and al his members well proportioned. For Rosis sayth, Whose face is not seemely, it is impossible for him for to have good manners. . . . And principally, that he be a good lyuer, and a keeper of the holy commandments of God, of whom commeth al cunning and grace, and that his body be not quaking, and his hands stedfast, his fingers long and smal, and not trembling: and that his left hand be as ready as his right hande, with al his lymmes able to fulfil the good workes of the soule." "And

I doo note foure thinges most specially that every chirurghion ought for to have:—the first, that he be learned; the seconde, that he be experte; the thirde, that he be ingenious; the fourth, that he be wel manered." . . . On reading this, it occurred to us that in his day, as in ours, a good presence and *Punch's* "good bed-side manner" were essential to success; but his further amplification of the expression "wel manered" shows that in his mind it meant far more than it does in our time. His concluding remarks on the duties of surgeons to each other seem well worthy of quotation at any time, but especially at present, in view of the recent controversy over the death-bed of the late Emperor of Germany. "And see they never prayse themselves, for that redoundeth more to their shame and discredite, than to their fame and worship; For a cunning and skilful chirurghion neede never vaunt of his dooings, for his works wyll ever get credite ynough. Likewise, that they despise no other chirurghion without a great cause; for it is meete that one chirurghion should love another, as Christe loveth us all. And in thus dooing, they shall increase both in vertue and cunning, to the honour of God and worldly fame." Had Vicary's wise counsel been generally accepted and practised, we would have been spared the unfortunate and discreditable controversy which recently formed the subject of a nine days' talk.

The remainder of his book is taken up with purely anatomical work, except that occasional reference is made to surgery, as might have been expected from a surgeon writing a work on anatomy. He entitles his treatise a compilation, laying no claim to originality, and accordingly, we find it simply a concise description of the state of anatomical knowledge in his day, largely based on Aristotle and Galen, and not apparently the outcome of original dissections on his part. As the book was first published 80 years before Harvey's great work, and 23 years before that of Cesalpino, who is credited by the Italians with the discovery of the circulation of the blood, we turned with some curiosity to see what Vicary had to say on the heart, blood-vessels, and lungs. He seems to have had a confused notion of the pulmonary circulation, describing the passage of blood from the heart by the *arterea venalis* (which he erroneously makes to take origin in the left ventricle) to the lungs to be purified there, but he also accepts, with Aristotle, as does Cesalpino, a free passage of blood from the right to the left ventricle. There is nothing original in his views, and a perusal of the rest of his treatise failed to discover any special interest attach-

ing to it, beyond the fact that it was the first work of its kind in the English language, giving a very fair idea of the position of anatomy at the time.

The volume before us, however, contains a great deal of matter of varied interest. Following on the *anatomie* we find a great number of extracts from the Patent Rolls, the records of the Courts of Augmentations, &c., dealing with grants made to Vicary by the various sovereigns to whom he acted as Sergeant of the Surgeons, his income for which seems to have been £20 a year, with additions from various sources. There are also many extracts from the city repositories, &c., at Guildhall, dealing with the foundation of Bartholomew's hospital, the licensing of barbers, unlicensed surgeons, sanitary matters in London, &c., and a copy of Vicary's will, &c. The statutes enacted by Henry VIII, relating to surgeons, follow:—1st, the Act stopping the practice of physic and surgery by all unlicensed folk, the license for London being obtained by examination before the Bishop of London or the Dean of St. Paul's, with the aid of practising physicians and surgeons as assessors; 2nd, the Act exempting the twelve fellows of the company of surgeons, and also the barber surgeons from serving as constables or jurymen, &c. Among them is an Act, of date 1542, from which it appears that the surgeons of those days, who get the credit of being ignorant, and often doing harm instead of good, were so greedy that they exacted fees quite out of proportion to the work done and to the ability of the patient to pay, so that permission is given to those who know the nature of herbs to cure outward sores by their application, and stone and ague by drinks. This Act practically repeals the monopoly granted in the first Act cited above, and from the reasons given for it, it is evident that the surgeons of the day had over-reached themselves in their use of the privileges granted to them. In the present day, which has been destructive of so many monopolies, there are many who clamour for stringent laws to put down unlicensed practitioners, and to protect the licensed ones. There are, no doubt, many sound arguments in favour of their agitation; but the experience of Henry's time would seem to show that there are risks involved in such a course of legislation. It may be claimed that there is no chance in the nineteenth century of such charges being brought against the profession as are brought against it in this Act; but a perusal of the documents reprinted in this volume clearly shows that human nature in our day is pretty much the same as in Vicary's.

From the Draft-Rules of the London Company of Barber-

Surgeons (1529), and from the Ancient Ordinary of the Barbers and Surgeons of York (1486 and 1592), many interesting quotations might be made. These regulated the admission of members to the company, the appointment of lecturers and demonstrators in anatomy and surgery, whose demonstrations all the members had to attend under penalty of fines for absence without due cause, the taking of apprentices (whose term was for not less than seven years), all matters of unprofessional conduct one to another, &c. They must have been very socially disposed in these days, for they made frequent excuses for dining together, but always at a moderate cost, the price for dinner being viii d. It is also to be noted that they were more gallant then than we are in these degenerate days; their wives were always of the company (at a cost of iiij d. per head), while now the ladies may be allowed to look on at a banquet, as on a recent occasion in our midst, which has led to a good deal of grumbling (not unnaturally) on their part.

The volume concludes with a reprint of *The Ordre of the Hospital of S. Bartholomewes*, 1552. Henry VIII, in 1544-46, founded barts for 100 patients, with an endowment of 500 marks a year, the City of London finding another 500. The City, however, found this endowment quite insufficient, and, with a generosity which has characterised the City corporations, spent nearly £1,000 annually to provide fitly for 100 of the sick poor. Busybodies, nevertheless, slandered them, and got certain preachers to attack them from the pulpit. Hence the Lord Mayor and the governors published the regulations according to which the hospital was administered. These are admirable, showing the breadth of the spirit of charity with which the founders were imbued. The length to which this review has extended leaves room for only one quotation, the charge administered to all new governors on assuming office:—

“It may please you to understand, that ye are here elected and chosen, as fellowe governours of this hospitall, to continue by the space of two yeares: by all whiche tyme, accordyng to such laudable decrees and ordinnances, as have bene and shal be made by the authoritie of the lorde maiour, chief patrone hereof, in the name of the Citie, and the consent of the governours for the tyme being, (all your other businesse set aparte, asmuche as you possibly may,) ye shall endeavoure your selves to attend only upon the nedeful doynges of this house, with such a loving and careful diligence, as shal become the faithfull ministers of God, whom ye chieflie in this vocation are appointed to serve, and to whome, for your negligences

or defaultes herein, ye shall render an accompt. For truly ye cannot be blamelesse before God, if after you haue sette hand to this good ploughe, and promysed your diligence to the poore, ye shall contrarywyse tourne your head backwarde, and not perfourme the succour that Christ loketh for at your handes, and hath witnessed to be done to hymself, with these wordes: 'Whatsoever ye do to one of these nedy persones for my name's sake, ye do the same unto me. And contrary wyse, if ye neglecte and despyse them, ye despise me.' We therefore require and desire every of you, on Goddes behalfe, and in his moste holy name, that ye endeavoure your selves, to the best of your wittes and powers, so to comfort, ordre and governe this house, and the poore therof, that at the last daie, ye maie appere before the face of God, as true and faithfull stewardes and disposers of all such thinges as shal, for the comfort and succour of them, (during the tyme of your office) be committed to your credite and charge. And this to do, we require you faithfully to promes in the syght of God and hearyng of your brethren. And so doing, we here admitte you into our fellowshipp."

From this it is clear that the governors of the hospital must have been men willing to make a great personal sacrifice of time, and to devote themselves to charitable work after a manner that is but rarely seen now-a-days, when many accept the office of director of charitable institutions without devoting much of their time to the interests committed to their charge.

All who take an interest in antiquarian subjects, and especially in those related to our profession, will find pleasure in a perusal of this volume. Our thanks are due to the Early English Text Society for having brought it within the reach of all, and we look forward with pleasure to the issue of the second part. We are also very much pleased to see among the list of the works they have in preparation Trevisa's English version of *Bartholomaeus de Proprietatibus Rerum*, one of the earliest cyclopædias of science.

Nature's Hygiene: A Systematic Manual of Natural Hygiene, containing a detailed account of the Chemistry and Hygiene of Eucalyptus, Pine, and Camphor Forests, and Industries connected therewith. By C. T. KINGZETT, F.I.C., F.C.S., etc. Third edition. London: Baillière, Tindall & Cox. 1888.

As compared with the first, the third edition of *Nature's Hygiene* is, in many respects, a new book, there being added

an account of the author's recent investigations concerning the comparative action of a number of antiseptics, the precise chemical history of various fermentative and digestive processes, the Chemistry of Camphor Oil and Russian Turpentine, and some other subjects. Mr. Kingzett again expresses strongly his opinion that chemical officers are urgently needed to act side by side with medical officers of health and engineers, to deal effectively with the many important matters affecting public health; and suggests that they should do the work at present conducted by public analysts, and that to them should be referred all matters in connection with water supply, gas supply, and the disposal and utilisation of sewage and refuse.

The various subjects discussed are grouped under fourteen chapters, each chapter being a complete essay in itself, so that the book combines the features of a continuous study of some processes of Nature's chemistry and hygiene, and a series of articles on scientific subjects.

Chapter V, on Water and Water Supply, is an essay of great interest and value. He says:—"Rain water collected after some continued fall, is as nearly pure as it can be found in nature; but even then it contains about $2\frac{1}{2}$ volumes of air dissolved in each 100 volumes by measure. Such rain water may be regarded as practically pure, and while upon this subject, it may be remarked that it is a great pity that its collection for domestic employment is not more extensively carried out. The earlier fall of rain water which is collected after dry weather is contaminated with traces of nitrates and nitrites, salts of ammonia, and some organic impurities; but none of these impurities are of very serious moment, and efficient filtration would make such rain water quite fit for many purposes, and the later portions would be safe for drinking use." In rural districts, where there is a fairly pure atmosphere, the rain water collected from slated roofs and filtered would be much safer for domestic purposes than well-water, or than water drawn from running streams passing through a cultivated agricultural district.

Chapter VI, on Sewage; its nature, disposal, and treatment, is also a valuable contribution on the subject. He discusses, in a very exhaustive manner, the various methods of sewage disposal, and sums up in favour of a mixed scheme, irrigation and chemical treatment, as follows:—(1) Where practicable, a separate system of drains should be employed for sewage proper and rain water. (2) Rain water, thus collected, may be adequately purified either by filtration

through a properly drained porous soil, or by natural oxidation in a running stream of sufficient volume. (3) Sewage, whether admixed with rain water or not, should be so dealt with that the solid parts are removed from the liquid parts. The liquid parts should then receive either chemical treatment, so as to obtain valuable products therefrom, or be used for irrigation purposes. The solid parts merit chemical treatment so as to obtain such products; or, failing this, to render them innocuous until they are utilised as manure.

Mr. Kingzett describes a process of precipitation patented by himself in 1885. It consists in adding to the raw sewage powdered coke which has the property of absorbing ammonia, sulphuretted hydrogen, and other offensive gases, deodorising the sewage as a whole, and giving to the precipitate which is obtained certain most important qualities.

The process of utilising sewage by the extraction of ammonia is also described. The late Dr. James Young (of Kelly), so well known in connection with the paraffin industry, conducted an elaborate series of experiments on this subject, and was engaged in his investigations till within a few days before his death. The practical difficulty consisted in the large amount of rain water present. Sewage proper contains from 4 to 7 grains ammonia to the gallon, and Dr. Angus Smith calculated that if 1 grain of ammonia could be taken from each gallon of sewage there would be obtained from 1,000,000 gallons about 140 lbs. At this rate, the ammonia extracted from the Glasgow sewage would be worth about £60,000 per annum, the remaining products being also of value for agricultural purposes. As the result of experiments, Dr. Young found that by the use of an exhausting air pump, and at a temperature of 80° F., sewage containing 5 grains ammonia per gallon, could be almost entirely deprived of it in a few minutes. "When he passed the sewage down a coke-filled tower, which was rendered vacuous, and which gave, from a great expansion of surface, a ready means of evaporation, he considered that he had put the problem in a satisfactory form." These experiments have not been followed up since the death of Dr. Young, and of his friend, Dr. Angus Smith. As mentioned, the great bulk of water from the rainfall and the surface drainage constituted the chief difficulty.

In Chapter IX, on "Treatment of the Sick, and Notes on the Chief Infectious Diseases and Disinfection," Mr. Kingzett says:—Persons who are attacked with any infectious disease should be immediately isolated from friends and relations, and

the nurse and doctor should alone visit them. The sick room should be as near the top of the house as possible. It should be well ventilated, and all superfluous furniture and effects should be removed. A fire should be kept in the room. Outside the door of the sick room it is well to hang a sheet, so arranged that before the door is opened it can be restored, so as to make a tolerably perfect screen for intercepting the air that may come from inside the room. "This air may be contaminated with the virus of the disease, and hence it requires disinfection, which is carried out by keeping the sheet moistened with a disinfectant such as pure sanitas fluid, or, better still (on account of its deliquescent character), sea water sanitas. A spray producer may be used for moistening the sheet from time to time, and also for spraying sanitas fluid about the sick room. Nothing is more grateful to the patient than the free use of sanitas in the room." It is a good plan to keep all water used for ablution in an antiseptic state, by the addition of a little sanitas fluid or other chemical reagent. Linen or clothing from a sick room should be steeped in a disinfectant solution; and, after removal, instantly boiled with plenty of soap and some disinfectant. Cups, glasses, spoons, and other articles which have been handled by the patient should also be immersed in a 20 per cent solution of sanitas fluid and water before removal from the sick chamber. Any dry food not eaten by the patient should be burned in the fire in the room; and any liquid food, together with all slops and the excreta, should be mixed with some disinfectant before removal. Sanitas powder, or crude sanitas fluid or sulphate of copper, may be used for this purpose. The breath of patients should not be inhaled by attendants.

Such are *a few* of the precautions recommended in the treatment of the sick, and it may be safely said that were all the precautions strictly attended to, the spread of the communicable diseases would be almost impossible. But it may be also said that the carrying out of these precautions would be impossible even amongst the most opulent classes.

Part II, comprising Chapters X to XIV, is devoted chiefly to the properties of "sanitas," and contains much useful information on "Nature's hygiene." There can be no doubt that sanitas fluid and sanitas oil, which are obtained by oxidising the oils of turpentine, eucalyptus, or camphor, by air in the presence of water, are excellent disinfectants, but Mr. Kingzett seems to place too much importance on them in the treatment of disease. Indeed, a perusal of the book leaves

an impression that the chief object of the author is to extol the virtues of "sanitas."

The volume, however, contains much useful information on sanitary matters in general, and on disinfection in particular, from the chemist's point of view.

The Diagnosis and Treatment of Diseases of the Rectum. By WILLIAM ALLINGHAM, F.R.C.S., &c. Fifth Edition. Edited and revised by HERBERT ALLINGHAM, F.R.C.S. London: J. & A. Churchill. 1888.

THIS new edition of Allingham's well known work has been taken in hand by his son, Mr. Herbert Allingham, who has for more than seven years assisted his father in his practice, and has consequently gained a wide experience of rectal disease in its varied forms. Since the last edition appeared, six years ago, excision of the rectum has received much attention, and has taken its place as a legitimate operation in certain selected cases. Mr. Allingham, Jun., devotes a short but suggestive chapter to the discussion of the cases suitable, the details of the operation, and the probabilities of permanent good, and chronicles at some length the particulars of the more important cases which have passed through his hands. He throws some doubt on Dieffenbach's statement that "he had thirty successful cases of extirpation of the rectum, the patients living many years after the operation;" and sums up with the modest postulate:—"If the disease be near the anus, not extending say more than two inches up the bowel, I should not hesitate to excise it, especially if the cancer be of slow growth; but should it be rapid and widely spreading excision is perfectly useless." With this conclusion we entirely concur.

Mr. Allingham, Jun., is a strong advocate of inguinal in preference to lumbar colotomy, and gives the following reasons as the ground of such preference:—"The position for the operation is undoubtedly better both for the patient and the operator; for if the abdomen is distended, the side position is bad for the administration of anæsthetics; whereas, in the inguinal operation, with the patient on his back, and the shoulders slightly raised, the impediment to respiration is diminished. In the side position, the intestine has a tendency to fall away from the loin, and this is sure to happen if there is a well marked mesentery, thus increasing the difficulty in finding the gut, and necessitating a larger incision, the introduction of the hand into the wound, and therefore considerable disturbance of the cellular tissue about the loin.

But in inguinal colotomy, owing to the position of the patient, the sigmoid flexure will not fall away from the opening, in spite of its having a decided meso-colon." While admitting that these reasons have some weight, we would point out that, according to the author's own description of the inguinal operation, the colon does not usually present in the wound, but is covered by small intestines, so that the operator has to search for it in the iliac fossa, or on the edge of the pelvis, and bring it to the surface. Why does Mr. Allingham consider a search of this nature to be so dangerous when it is extra-peritoneal and so innocent when intra-peritoneal? He seems to be thoroughly imbued with that contempt for the peritoneum which so strangely distinguishes the surgeon of to-day from his predecessor of fifty years ago, and actually puts forward the free opening into the peritoneum as a prominent merit of inguinal colotomy. The truth is that the chief gain obtained by the operation in the groin is that the artificial anus is so placed that the patient can keep himself clean without the aid of others, while its prominent defect is that the opening is too near the seat of the disease. Allingham denies that the latter is the case, but we have seen several patients in whom the cancerous mass could be felt above the brim of the pelvis, and know of one fatal result where, even with left lumbar colotomy, the bowel had been torn across at the upper extremity of the disease by the traction made in operating. If this was the result in operating in the loin, how much more readily would it happen in operating in the groin!

We turn with some interest to the description of the various operations for piles, and are not ill pleased to find that Mr. Allingham's long experience serves only to confirm the old view that for internal piles no operation is so safe, harmless, and satisfactory as ligature. He believes, however, that Whitehead's method of operating is suitable in those cases "in which the whole area of the lower bowel is affected with a vascular condition," but adds, "where the piles are separate, and there is no so-called 'pile-area,' it is unnecessary and not to be recommended." As to the "clamp and cautery method," associated with the name of Mr. Henry Smith, he regards it as the most dangerous of all operations for piles, and "fully six times as fatal as the ligature."

We can cordially recommend the work, as embodying the ripe experience of a surgeon specially skilled in the department of surgery of which he treats; and as being well abreast of the scientific knowledge of the day.

Transactions of the Obstetrical Society of London. Part III.
For June and July, 1888.

THIS part contains one or two interesting communications and discussions. In a paper read on 6th June, Dr. W. E. Steavenson, of St. Bartholomew's Hospital, advised the use of electrolysis as a general caustic for gynecological practice. In cases of stricture, such as stenosis of the cervical canal and of the female urethra, he suggested the employment of the negative pole for a few minutes with a current of five milliampères, and stated that there is not only no after contraction, but that the canal is found wider than it was left just after the operation. The negative pole is recommended for abrasions of the cervix.

When the positive pole is to be used, as in the case of uterine fibroids, a platinum electrode must be employed, but in other cases where the negative pole is used, the electrode may be of zinc or any other convenient metal. For hospital practice he recommended a Stöhrer's zinc-carbon battery as giving great electro-motive force; but for private practice, a more portable form, such as the modified Leclanché battery, is considered more convenient.

The reading of this paper was followed by a very animated discussion of the subject, with the result that opinion seemed very much divided as to the good effects of electrolysis in gynecological work.

On 4th July, Dr. Boxall, Physician to the General Lying-in Hospital, read a paper on "The Conditions which favour Mercurialism in Lying-in Women, with suggestions for its prevention." It was proved that the use of intra-vaginal, as well as intra-uterine injections of corrosive sublimate, occasionally led to mercurial poisoning, and that the common cause of this accident was the retention of quantities of the fluid in the uterus and vagina. Wounds of the soft parts favoured more rapid absorption, and diseases of the kidneys hindered elimination of the drug.

For the prevention of this accident, it was suggested that the uterus and vagina should be carefully pressed empty after the use of the injections, and that they should be used of such a temperature as to secure contraction of the uterus; vaginal and perineal wounds should be closed, and abrasions covered by some material impervious to the solution. Lastly, elimination by the kidney and bowel should be encouraged by means of mild saline drinks, such as sulphate of magnesia, with the juice of fresh lemons.

A Handbook of Surface Anatomy and Landmarks. By BERTRAM C. A. WINDLE, M.A., M.D. London: H. K. Lewis.

THIS work, as is implied by its name, deals with the study of anatomy from the surface of the body, and finds its practical application in the fields of medicine and surgery. It is in no sense a work on artistic anatomy. Such being its scope and its limits, it is impossible to avoid drawing a comparison between it and the well known "Landmarks, Medical and Surgical" of Luther Holden.

It is perhaps unfortunate for Professor Windle's book that the ground which it covers should be already so well occupied, but this at least may in justice be said for it, that in respect particularly of the relations of the different parts of the brain to the surface of the head, it is much more complete than the other. Although, in most cases, it is not possible for the student to verify for himself the statements made with reference to the exact position of the various cerebral convolutions, yet the detailed accounts which Professor Windle gives cannot but be of advantage to him, more especially in those days when the operative surgery of the brain has become fashionable.

The presence of a number of diagrams will by many be regarded as a very distinct aid, but, on the other hand, it is a matter of question as to whether such helps are not out of place in a work devoted to a study which may be so easily pursued on the actual subject. The figures which Professor Windle has introduced are for the most part simple, and merit no special criticism; speaking generally, with the exception perhaps of No. 2, they are sufficiently accurate for the purposes intended.

The author's style is exceedingly pleasant and easy; and for the manner in which the book is turned out, the publisher deserves the very highest credit. The work is one which we can with confidence recommend to students and practitioners.

Anatomy of the Upper Extremity. Edinburgh: E. & S. Livingstone.

THIS book is of such a size that it may readily be carried about in the pocket; perhaps it may become popular among those who find it convenient to cut up the larger manuals for this purpose. Beyond this, it has nothing to recommend it.

A Directory for the Dissection of the Human Body. By JOHN CLELAND, M.D., LL.D., F.R.S., Professor of Anatomy in the University of Glasgow. Third Edition.

THE third edition of this manual, which has been well revised by Dr. J. Y. Mackay, admirably fulfils the purpose of the author—viz., that of guiding the student of human anatomy in his dissecting room work. Professor Cleland is careful to explain that it has not been written with the view of interfering with the works of anatomical demonstrators or systematic anatomy, but is simply intended to supplement such books. From this point of view, as well as for other reasons, the introduction of the footnote on page 130, referring to the hexagonal pigmented epithelium of the eyeball seems unfortunate.

As a guide to the dissector who desires to study the "subject" as it should be studied, the manual is excellent. The steps by which the student is to proceed with his dissections are well planned, and the directions, clearly and concisely given, are sufficient to draw his attention to the various structures seen in the regions referred to. In the dissection of all surgical regions it is a good rule to study the structures in the position usually adopted in the operations most commonly performed in those regions.

More than a single day might, with advantage to the ordinary student, be devoted to the dissection of the perinæum, and, considering the great importance of this region in the female, in whom the perineal structures are so liable to disease or injury and so frequently the seat of surgical operations, it seems advisable that its dissection should be carried out in the same way as regards position, &c., as that adopted in the dissection of the male perinæum, and at a correspondingly early period.

Curvatures of the Spine. By NOBLE SMITH, F.R.C.S.Ed. Second edition, much enlarged. London: Smith, Elder & Co. 1888.

A TREATISE on spinal curvatures which makes no mention of Pott's disease is surely somewhat like the play of Hamlet with the Prince of Denmark left out. In his introduction, the author states that "it is mainly with curvature produced by posture that we have to deal in the following pages"; and it would have been better had he shown this in the title of the book. Certainly in Scotland

such cases are few in number compared with those due to caries of the bodies of the vertebræ.

We can commend the chapter on Lordosis, as giving in small space an admirable summary of the causes of such deformity, and the appropriate means of treatment. Mr. Smith has a strong objection to the ordinary forms of spinal support, whether steel supports with crutches resting on the pelvis, or the poro-plastic, leather, or plaster of Paris jackets which have been so much used in late years. He discusses the advantages of a support devised by himself, but as he gives no details of its construction and no diagram to show its appearance, we can form no opinion of its value as a means of curing postural curvatures.

In an appendix of twenty-six pages, Mr. Smith gives a series of gymnastic exercises, abstracted from a book called "Sound Bodies for our Boys and Girls," by William Blaikie. We have no doubt these will prove useful in many cases where the deformity is the result of faulty posture or of insufficient muscular exercise.

A Handbook of the Theory and Practice of Medicine. By FRED. T. ROBERTS, M.D., B.Sc., F.R.C.P., &c. Seventh Edition. London: H. K. Lewis. 1888.

OF the seventh edition of a work it is not necessary to say much; its appearance in that form says more for it than a reviewer can. The work has undergone careful revisal, and descriptions have been added of diseases that have become differentiated or more prominent in medical literature since the issue of the sixth edition, *e. g.*, Thomsen's disease, Raynaud's disease, beri-beri, actinomycosis, and multiple neuritis. No mention, however, is yet made of æthetosis, and no room has been found for a chapter on insanity, the omission of both of which we remarked in a notice of the former edition. We have no doubt that the present edition will be as popular as its predecessors, as it deserves to be.

Letts's Medical Diary for the Year 1889. London: Cassell & Co., Limited.

WE have received a copy of this very serviceable diary, and can heartily recommend it to our readers. It combines the features usually found in such publications, and maintains well the reputation which "Letts's" Diaries have earned.

Procès Criminel de la Dernière Sorcière brûlée à Genève.
 Publié par le DR. LADAME. Bibliothèque Diabolique. 1888.

THIS little work gives the full reports of the trial for witchcraft of an unfortunate old woman named Michée Chauderon. Its chief interest lies in the medical reports submitted to the judges. The author claims that the medical faculty was the first, in Geneva at anyrate, to object to the burning of witches. The medical men were called on to report on the presence of devils' marks on the accused. These were known by their insensibility. The Geneva doctors and surgeons found two anæsthetic patches, but failed to find in that fact sufficient evidence of the bearer having sold herself to Satan. The prosecutor accordingly called in "unprejudiced experts" from a neighbouring town, and these found no difficulty in making a diagnosis. The Geneva doctors further examined one of the girls said to be bewitched, and after describing a hysterical fit, they concluded their report by saying they were unable to pronounce the case one of demoniacal possession. Michée was tortured into a confession, and was burned. The author considers her to have suffered from hemianæsthesia.

MEETINGS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

SESSION 1888-89.

MEETING V.—16TH NOVEMBER, 1888.

PATHOLOGICAL SECTION.

DR. PERRY *in the Chair.*

I.—OVARIAN TUMOUR REMOVED FROM A CHILD.

BY DR. H. C. CAMERON.

A large ovarian tumour, removed from a child $3\frac{1}{2}$ years of age, was exhibited. The tumour weighed $3\frac{1}{2}$ lbs.—and microscopic examination proved it to be sarcomatous—of the round celled variety. After the operation, so profound was the shock, and so little did the child rally, that the possibility of bleeding from the pedicle was suggested, though from the

easily ligatured character of the pedicle this seemed impossible, and after death it was found there had been no bleeding. The following are the notes of the clinical features of the case as supplied by Dr. Finlayson.

A little girl of 3½ years was admitted to the Hospital for Sick Children on 29th May, 1888, with a marked swelling of the abdomen. It seemed to have begun three or four months before that time. This enlargement had not been associated with febrile or any other general disturbance, and had not disordered the action of the bladder or bowels. An examination of the various organs gave negative results except as stated below. The abdomen measured 29 inches at the umbilicus, and on examination it at once seemed obvious that the swelling depended on a tumour occupying chiefly the right part of the abdomen, but traceable, on deep pressure, as extending a little to the left of the middle line also. The upper part of the tumour could be easily traced by the hand, but the lower portion could not be accurately defined, and pressure in this situation caused pain. The tumour gave the impression to the hand of deep fluctuation or elasticity, and it presented a certain mobility from side to side. The area of the tumour as felt by the hand was traced on a diagram; on percussion the whole of this was dull, and no change occurred on shifting the position of the patient. A marked hernial protrusion, into the left labium, was easily reduced. It was thought well to explore the bladder with a catheter: 2 oz. of urine were drawn off without affecting the tumour in any way, the urine itself was natural.

On admission, and for some days thereafter, there were indications of only a little fluid in the peritoneal cavity, but a fortnight after admission a rapid increase occurred, the abdomen increasing to 31 inches, evidently due to the accumulation of fluid in the peritoneum: the tumour could not be defined, but on deep palpation it could be felt as a movable body. A little rubbing or crackling at the left margin of the tumour was detected on manipulation a few days before the operation; it was thought to be due to peritoneal friction.

The most striking phenomena associated with the tumour were the evidences of changes such as occur at puberty. The mammæ had enlarged with the appearance of the abdominal swelling; they were on admission notably developed, not hard, but with quite a glandular feeling on touching them; no secretion had ever been observed to come from them; there was no areolæ at the nipples, but a few hairs of fine texture were seen on the breasts. The labia pudendi were full and

presented a small development of hairs such as is seen in incipient puberty; there were no hairs in the axillæ. There was a well marked black line extending from a little below the umbilicus down to the pubes. Some discharge of clear fluid was described as coming from the vagina occasionally, since the swelling appeared, and some gelatinous material seen there after admission was found to contain much epithelium but no pus.

In view of the character of the tumour, and the concurrent evidences of precocious puberty, the diagnosis of ovarian tumour was made with some confidence, and shortly before the operation the evidence of rapidly increasing peritoneal effusion was complete.

Note by Dr. Finlayson.—Ovarian tumours have been found in very young children, and in the *American Journal of Obstetrics*, vol. xv, p. 627, there is a table of 23 cases of ovariectomy in children, some of which are as young as 2 years, and even earlier ages have been reported. In some cases the ovarian tumour seems to have been congenital (see *Archives of Pediatrics*, vol. i, p. 668).

At a meeting of the Clinical Society of London, on 27th April, 1888, there was some interesting discussion on the occurrence of precocious puberty in cases of ovarian tumours; but many cases of precocious puberty had been observed by the speakers in young girls without any such tumours.

The Chairman (Dr. Perry) remarked on the interesting nature and rarity of such cases, and questioned the advisability of operation, considering the great mortality, judging from the statistics mentioned by Dr. Cameron.

Mr. H. E. Clark drew attention to the prevalence of sarcoma in young children. Some years ago he had shown a sarcoma of abdomen and scrotum, involving the testicle, originating apparently in the spleen, and passing down. The literature of the subject showed that the record was a very large one. Some of the cases were recorded as of congenital origin, but, as a rule, conclusive evidence of this was wanting. In his own case, the tumour was undoubtedly present at birth—it seemed as if such cases were getting more common in young children.

Dr. Dalziel remarked on the frequency with which malignant disease of the ovary was associated with considerable ascites, and dwelt on this feature as a point of diagnostic value between innocent and malignant disease of the ovary.

Dr. Cameron, in reply, said that the large amount of ascitic fluid was acknowledged to be a point of diagnostic value, and

that several cases were on record supporting this view. He had had a case of this character some time ago, in which, on completing the abdominal incision, so much fluid escaped that it was suggested that the cyst had been opened; the ovarian tumour was, however, found and the pedicle ligatured. Recovery was rapid until an access of pain and rise of temperature occurred, and a swelling appeared which was punctured without result. Ultimately a second operation was undertaken, and a large sessile tumour removed, not without considerable hæmorrhage. The patient again made a good recovery, but in about six weeks ascites recurred, and the patient gradually sank. The *post-mortem* examination showed the whole abdomen scattered over with sarcomatous growths.

II.—FUNGATING TUMOUR REMOVED FROM THE BACK OF THE NECK OF A CHILD.

By DR. H. C. CAMERON.

Dr. H. C. Cameron also exhibited a fungating tumour removed from the back of the neck of a child six months old. There had been considerable hæmorrhage from the surface of the tumour, so severe, that, when brought to the Hospital for Sick Children, immediate removal was deemed necessary. An elliptical incision having been made through the skin round the base of the tumour, the mass was removed with ease, there being no adhesions with the subjacent structures, the tumour having evidently originated in, and been confined in its growth to the skin. The mother stated that on the site from which the tumour developed there had been at birth a mole or small wart, and that shortly after birth this assumed a reddened strawberry appearance, and rapidly increased in size.

Dr. Dalziel showed several microscopic sections of the tumour, and described it as a sarcoma, and, composed as it was of large round cells grouped in the meshes of an extremely delicate, almost fibrillar network, it seemed not improbable that it belonged to the alveolar variety, a view somewhat supported by its seat of origin. There was no pigment present in the tumour as far as the observations had been conducted. Blood-vessels of an extremely embryonic type permeated the tumour, and in parts the cells were massed together with only a finely granular or fibrillar matrix. The tumour was the size of a small orange, and while the greater part of the surface was ulcerated, that part at the base was as

if encapsuled, and, projecting through the skin, had lain on the subjacent structures without implicating them in its growth.

Mr. H. E. Clark instanced this as another case of the frequency with which sarcoma occurred in childhood, in which, however, he had never seen a sarcoma occur as a dermal growth. Knowing the subsequent history of sarcomata, that many recur at an early date, and as this seemed to be a specially malignant form, he fancied the prognosis would be very unfavourable.

Dr. Cameron said he had no experience in cutaneous sarcomata except the melanotic variety, and he could fully bear out the views expressed by *Dr. Dalziel* as to the malignancy of that form of sarcoma. From the mother's statement that it began as a small mole, it was probable that this sarcoma was to all intents and purposes of the melanotic variety, some of which were highly, others only very lightly, pigmented.

Dr. Knox said that this specimen resembled a pigmented sarcoma of the skin which he had removed from the foot of a young girl, and which he had exhibited at the Pathological Society. The long fibres are very characteristic, and between these fibres the cells are running in rows; in fact, one would imagine that several cells were formed by fission from an elongated cell. In his case it was a coal black tumour, but fancied the disease here was practically of the same nature.

III.—OBLIQUE INGUINAL HERNIA.

BY MR. HENRY RUTHERFURD, M.B.

A case of oblique inguinal hernia, with commencing direct on the same side, was shown. The specimen was from a man who died of cancer of the liver, the abdominal distension and displacement downward of parts attendant upon which might, it was suggested, be regarded as the cause of the hernia.

The specimen was of interest chiefly as showing the relation of the conjoined tendon to these two forms of hernia. The insertion of the tendon was found to extend outwards along Poupart's ligament as far as the internal ring, the outermost fibres forming a somewhat thickened band, which passed beneath and behind the neck of the sac and spermatic cord to its insertion.

Sir Astley Cooper was quoted as having insisted on the presence of the conjoined tendon in the coverings of direct hernia, and as having described its insertion along Poupart's ligament as far out as the internal ring. The later editions of Quain (*Lectures on Surgery*, orig. ed., lect. 28), and

Gray (*Observations on the Structure and Diseases of Testis*, 1841), however, did not describe this insertion, but spoke of a space between the opening in the fascia transversalis and the edge of the tendon (inserted into crest of pubis and pectoral line), through which a direct hernia might pass uncovered by that structure.

Observations by Braune, of Leipzig, were referred to in corroboration of the view held by Sir Astley Cooper, to the effect it is the conjoined tendon which defines and gives fixity to the internal ring, and that consequently every direct inguinal hernia carries in front of, or escapes through, this structure.

A case was referred to similar to the one in question, described by Mr. Chiene in the *Edinburgh Medical Journal* for March, 1869. In both the direct hernia was external to the obliterated hypogastric, passing—that is, through the outer part of the triangle of Hesselbach. Mr. Chiene described the direct hernia as passing under the edge of the conjoined tendon, and this he referred to as the usual condition when the direct hernia passes external to the obliterated hypogastric.

It was pointed out in explanation of the appearances described by Mr. Chiene that, as described by Braune, and as illustrated by the specimen, the tendon was stronger at its insertion into the crest of the pubis, and again at the edge of the internal ring, while between these it was thinner; and that while the middle portion might have become much stretched by the hernia, the outer might easily have been destroyed by the dissection to display the deep epigastric artery.

Mr. H. E. Clark said as regards the case of hernia, he quite agreed with the statement that the conjoined tendon extends much farther than is described in books. His attention has been called to this more especially by Dr. Macewen, in his investigations in the radical cure of hernia. Books are intended to give a diagrammatic view, and are expected to shun the other parts. A direct inguinal hernia is either covered by the conjoined tendon or bursts through it. No direct hernia can occur without these conditions.

Dr. John Yule Mackay said, as regards the anatomy of the parts, he did not believe that the conjoined tendon is described in books as it should be. In addition to its attachment to the crest of the pubis, it passes outwards along Poupart's ligament for fully half its length. There is a strong outer and inner portion. There is also an intermediate portion, which is often exceedingly thin, and has never been recognised until quite recently. Professor Braune calls the outer portion the band

of Hesselbach. It passes down by the inner edge, round the lower edge, and a part of the outer edge of the abdominal ring. No hernia could enter the canal, except by way of the internal ring, without passing through this offset of the conjoined tendon. He has always been able to find the band, though in some ill developed, but in others well developed.

Dr. D. N. Knox would first refer to what Dr. Rutherford has said about *Quain's Anatomy*. If he will look a little further into the surgical anatomy, as given there, he will find a statement which will explain some of his difficulties. Quain recognises three forms of inguinal hernia—external oblique inguinal hernia, internal oblique inguinal hernia, and direct inguinal hernia. The internal oblique is one of the forms which Mr. Clark has put under the term direct, and this is the form of hernia which would carry this thin band of Hesselbach before it into the canal. This was the view that was handed down from Quain's time, and it was retained in the eighth edition.

IV.—UNILOCULAR CYST OF THE OVARY.

By MR. HENRY RUTHERFURD, M.B.

Mr. Rutherford also showed a unilocular cyst of the ovary, removed by Dr. Newman, in the Western Infirmary, from a patient aged 41; married; multiparous.

The points on which the diagnosis was made, of ovarian as against parovarian tumour, were:—Firstly, its relation to the parovarium, a well formed representation of this structure being easily made out in the broad ligament, which, with Fallopian tube ($2\frac{1}{2}$ inches including fimbriated extremity) and free margin, had been removed with the cyst. Secondly, the impossibility of separating from the surface of the cyst any layer which could be considered peritoneum. It was possible, on the other hand, to split the wall incompletely into several layers. Thirdly, at the operation, careful search by Dr. Newman failed to find anything else to represent the right ovary, while the left was found normal.

The cyst wall was about $\frac{1}{8}$ of an inch in thickness, and this with considerable uniformity. Its inner surface was corrugated, and microscopical examination showed it to be covered with an epithelium rather variable in character, at points appearing as a single layer of somewhat columnar cells, at others more cubical and sometimes several layers deep and less regular.

As already stated, the thickness was fairly uniform. No

one part of the wall could be found thicker than the rest which could be supposed to represent compressed ovary.

A few small cysts with a very thin covering were found on the surface of the tumour near the broad ligament. These were about the size of a pea, flattened, and contained a thin, clear fluid. It was suggested that they were of lymphatic origin.

At the operation the tumour was found to contain 144 ounces of a pale, slightly viscid fluid—sp. gr., 1015.

The appearance of such cysts as the one under consideration has been insisted upon by Olshausen (*Billroth's Handbuch der Frauenkrankheiten*), who at the same time admits their great rarity. From their occurrence at times with several small cysts occupying the remainder of the ovary, he classifies them as oligolocular cystomata of the ovary. The cyst he considers to be of independent origin, each in a Graafian follicle, no one being secondary to another as in the proliferating cystoma, with which consorts the simplicity of their walls and freedom (compensation) from secondary changes. He describes a case operated on by himself where the cyst contained 17 pounds of fluid, and mentions a larger specimen which he saw in Matthews Duncan's collection at Edinburgh. In support of his views, he adduces the opinions of Spencer Wells and Peaslee, as well as statements of a number of authorities who have speculated as to the precise changes which enable the walls of the follicles to thicken, while they expand instead of bursting.

Dr. Newman had nothing to say about the case except that at the operation the growth was recognised to be ovarian and not a parovarian cyst, and on independent examination being made by Dr. Rutherford he came to the conclusion that the cyst was ovarian. Dr. Newman considered the case one of considerable interest, as unilocular ovarian cysts are extremely uncommon, whereas parovarian cysts are usually solitary. The patient made a good recovery and is now well.

Dr. Knox said in reference to the cyst that he had very great doubts as to its being an ovarian cyst, it looked to him more like a parovarian, with its thick walls and lining of peritoneum. The cyst distinctly arises from the broad ligament, at the upper margin of which is the Fallopian tube. He did not see any trace of the ovary. If unilocular ovarian cysts do occur they must be excessively rare. Drs. Coats, Foulis, and himself had some years ago investigated this point, and they had looked at all the tumours in the Royal Infirmary Museum most carefully, and there was not a single unilocular ovarian cyst to be found. All the tumours show

that while one cyst may reach such enormous dimensions as to give from external appearances the idea that the tumour is unilocular, a careful examination showed in every case that the ovary was otherwise involved, and that other Graafian follicles had undergone degeneration and formed small cysts. If it was really ovarian this tumour was an excessively rare specimen, and he would recommend that it be referred to a committee to report to another meeting.

(This was agreed to, and Drs. Coats, Newman, Rutherford, Knox, and Dalzell, were appointed to examine the cyst and report.)

Dr. Newman said that he quite agreed with *Dr. Knox* in his opinion respecting the rarity of unilocular ovarian cysts, but nevertheless he had come to the conclusion that this specimen was a variety of ovarian tumour, rather than of parovarian, or cyst of the broad ligament. Probably the mode of production was that the cyst had caused a distension of the ovarian tissue which had now come to form its wall. The fluid from the cyst was clear, viscid, and somewhat of the consistency of glycerine—sp. gr., 1015. There is no specimen of unilocular ovarian cyst in the Museum of the Royal Infirmary, and probably not one in Scotland, but notwithstanding that fact *Dr. Newman* considered that the anatomical relationships of the cyst to the Fallopian tube, and the fact that no trace of ovary could be found, showed that the tumour had originated in the ovary and not in the parovarium or broad ligament. It has also to be stated that at the operation a large fibroma in the posterior wall of the uterus was discovered.

Dr. Coats said he was sorry he was not present at the opening of the discussion. He examined this specimen in the *post-mortem* room, and he felt convinced that it was not a parovarian cyst, as the parovarium is there, and he thought we were bound down to call it an ovarian cyst.

V.—MICROSCOPICAL PREPARATIONS.

DR. C. FRED. POLLOCK showed a series of microscopical preparations from eyeball, enucleated three months after wound of cornea, iris, and lens.

VI.—SARCOMA OF SKULL.

BY *DR. THOMAS REID.*

Dr. Wilson showed, for *Dr. Thomas Reid*, a patient suffering from sarcoma of skull, and read the following history:—

D. S., æt. 12, came to Glasgow Eye Infirmary on 16th January, 1888. At that time there was a small, soft, semi-fluctuant tumour present almost in the middle line of the forehead, and slightly above the line of the supra-orbital ridge. The growth had appeared two months previously, so that it is now a year since it was first detected. There was also another swelling about the size of a cherry in the lower segment of the right upper eyelid; it was freely movable over the tarsal cartilage. This growth appeared a month later than the other, and at the date of first examination the skin covering it, though not adherent, was of a deep purplish colour, with enlarged veins. The case was again seen at the dispensary on 2nd April, 1888, when it was found that the tumour had much increased in size, extending towards the right side, and not at all to the left. The tumour of the eyelid was enlarged, but still distinct from the other. The sense of smell was found to be perfect in both nostrils, while with the ophthalmoscope a typical double optic neuritis was discovered.

During the summer there has been a steady increase of the tumour—an increase, however, till recently confined to the right side of the forehead.

Now the tumour is beginning to cross the middle line, and is rapidly invading the left upper lid. The sense of smell is impaired, only the more pungent odours being detected. The general health has been good throughout.

The symptoms suggestive of brain implication are attacks of vomiting, unassociated with nausea, and accompanied by severe prostration, which have occurred at intervals of a fortnight during the past three months, the partial loss of smell known to have been previously perfect, and the changes in the fundus of the eye.

Dr. Dalziel thought it probable that there was a considerable growth of the sarcoma inside as well as outside the skull, after the manner depicted in Paget's *Surgical Pathology*. From the account of the impairment of smell, it was probable that the olfactory bulbs were entirely destroyed, and the remaining consciousness of pungent odours was due to stimulation of the fifth nerve.

Mr. H. E. Clark asked if there was no surgeon in Glasgow speculative enough to remove such a mass as this. He knew of a case of the same affection where Dr. Reid cut down and removed a portion of it, and at that time, though it was comparatively small, filling up the orbit only, there was erosion of the orbital plate. This confirmed what Dr. Dalziel referred

to as regards the growth inside as well as outside the skull. In that case, however, there were no cerebral symptoms at all. In his case he declined to operate, and the man, being very much inclined to get something done, went to Edinburgh and got some one to operate upon him, and died the same evening.

VII.—CARCINOMA AFFECTING THE OS CALCIS.

By DR. DALZIEL.

A series of microscopic sections of a carcinoma was shown. No clinical history could be procured. Presumably the tumour was a secondary one. The skin of the heel had remained entire, though much distended by the neoplasm, which was about the size of an orange, and had by its pressure eroded the os calcis, so that only a shell next its articular surfaces remained. The tumour was a very old one, and had been formerly labelled sarcoma, but under the microscope the sections showed it to be a typical and very beautiful specimen of carcinoma of the scirrhus variety, dense bands of fibrous tissue forming the alveoli, in which were the collections of epithelial cells.

MEETING VI.—7TH DECEMBER, 1888.

MEDICAL SECTION.

DR. SAMSON GEMMELL *in the Chair*.

I.—ANOMALOUS FORMS OF MEASLES AND SCARLET FEVER: A CONVERSATION BASED ON THREE CASES, INTRODUCED BY DR. J. WALLACE ANDERSON. (See page 12.)

Dr. J. W. Allan had listened with very great interest to the cases narrated by Dr. Wallace Anderson, but he was afraid he would be unable to throw much light upon the subject. Even when one had an opportunity of examining cases carefully, and from day to day, there was yet a difficulty in forming a diagnosis of many cases of zymotic disease. The cases which Dr. Anderson had brought before the Society were certainly puzzling ones. With regard to the measles cases it seemed pretty clear that that must have been the disease from the close association with cases of undoubted measles. Had it not been for this very close association one would naturally have

been a little doubtful on the subject. From the absence of the catarrhal condition, and the late appearance of the rash, they were cases that would naturally put any one out.

His impression, from Dr. Wallace Anderson's description, left him in doubt as to whether they were not cases of typhus, the appearance of the red spots on the hands and feet, and their being in, and not on the skin, pointing to that. But this was at once negatived by other cases of measles arising in the same family.

With regard to the scarlet fever case, he thought it was a very good example of what was recognised as a malignant case of scarlet fever proving fatal before the development of the symptoms of the disease, so closely resembling a case of irritant poisoning, as to have raised a suspicion of this in Dr. Anderson's mind. They did not see these cases in the hospital because they died before they could be removed. They were very apt to be mistaken for cases of cholera or poisoning. Fortunately in this case the appearance later on of a typical case of scarlet fever in the same family removed all doubt on the subject.

Infectious diseases had well marked types, but the deviations from these types were very numerous. As said by Trousseau, in the aberrant forms many of the important symptoms were entirely wanting. This had been compared to a defaced inscription on a medal, where the inscription was made known by its association with the other characters.

Dr. M'Vail said he was concerned to hear that Dr. Allan, with all his immense experience, had not seen such a case. He himself had never seen such a case. Dr. Anderson had spoken about the mild forms of zymotic disease, which did not show the typical symptoms, as being as protective as if they did. That was a statement which he very much doubted. As regards vaccination, it had been said that if they got one vesicle the protection was complete, but that was unfounded. He had in such cases repeatedly re-vaccinated the other arm, and he had got typical vesicles; that showed that taking the disease in a very mild form was not absolutely protective, and he did not think that taking measles in a non-typical form was as protective as a normal case of measles. He had seen cases in which a genuine outburst of measles in a child had occurred, where it was said to have had measles in a slight form before.

The difficulty that Dr. Allan had, with all his experience, with all the opportunity of watching and recording the cases that were under his care, of diagnosing cases which departed

from the typical pattern, was one of the greatest troubles in practice. When one's diagnosis was not absolute, it was difficult to give advice as regards isolation and disinfection. Not long ago such a case occurred in his practice, and he adopted all the precautions, and the case did remarkably well, but unfortunately it was an extremely mild case. There was a sore throat, but no rash that one could lay hold of. Some four months afterwards the child was removed to another locality, and took scarlet fever over again, and the doctor who had charge of the case was good enough to say that the Glasgow doctor was a blockhead. In this case he could not satisfy himself that there was desquamation. He had seen a child take scarlet fever so slightly that the desquamation was so slight as to be almost imperceptible, but in this case there had been almost no rash.

This raised the question of the notification of disease. They would have a great deal of trouble with these doubtful cases. Should they send them to the hospital and they turn out something else, or again, should they keep the case till the symptoms were more definite, or till another case turned up, then there was still further trouble. He would suggest that the authorities should provide a responsible officer to diagnose doubtful cases.

Dr. Milroy (Kilwinning) said he remembered an epidemic of scarlet fever of a very malignant type about 1873. There were thirty-three deaths from scarlet fever. Among these were several of the kind noted by *Dr. Anderson*. He remembered a boy who turned very ill with vomiting and purging, with dilated pupils, no rash, no sore throat, nothing but extreme collapse; he died in eighteen hours. At that time there were other two cases of malignant scarlet fever in the same house, thus rendering the diagnosis easy. He believed that these cases were not at all uncommon in country practice. As regards measles with no coryza, he had last winter an epidemic with membranous sore throat, the rash coming out round the roots of the hair, the back of the arms and wrist, and with an exceedingly high temperature. There was no albuminuria. In one child the rash was very like scarlet fever, and in another child of the same house the rash was very like measles. This peculiar epidemic with the throat symptoms, and a rash resembling scarlet fever was a considerable distance up the country. It came down the country and attacked another colliery, but died out about the beginning of spring. This winter it again began where it left off, and now they had patients with undoubted measles, and the principal

symptom was neither coryza nor membranous tonsillitis, but acute laryngitis. The croupy symptoms were very severe, lasting all the time the rash was out and generally dying with it. These two epidemics he considered as one and the same, but the throat symptoms had been somehow modified as well as the rash.

Dr. Robertson (Hamilton) said he came down to learn, not to give his experience, or to give any opinion on the cases brought before them that night; but after listening to the remarks already made, he thought he might communicate a case which struck him very much, and which occurred in his practice about three weeks ago, and rather puzzled him for two or three hours. The difficulty was solved by the appearance of the rash; it was a case of malignant scarlet fever. He was called in the morning to a boy about 13 years of age, in a profound state of collapse, with vomiting and very severe purging. On examining him very carefully, he was rather inclined to believe that the patient had got some irritant poison. He could not believe at first that it was a case of scarlet fever, because there was not such a thing in the immediate neighbourhood. He went back to the case as he was not satisfied with what he had seen, having prescribed in the meantime that patient should be bathed with warm water and mustard, and that he should have a little stimulant in the shape of hot brandy. He was back six hours after to find his patient very much worse, but covered with a rash which was very distinct. It had a bright scarlet appearance in very fine minute points. The boy died about one o'clock in the morning. Two or three days afterwards he was called in at the same place to see a little girl with a very distinct scarlet fever rash, sore throat, &c. This case served to confirm the diagnosis in the other.

During last winter they had in Hamilton a pretty severe epidemic of measles, and in his own practice he had 253 cases, a pretty good experience for three months. Among these cases he had seen a great diversity of symptoms; in his own family he had seven laid up with measles. The first case was not at all a malignant though a severe one; there would be a sudden attack of vomiting with great lassitude, the next day the child would be running about as usual. It was somewhat puzzling how the first attack of the measles poison in the system seemed to prostrate the child, which within twenty-four hours would get up and play, and then three days afterwards the coryza and rash would appear. This was a painful epidemic to him. His youngest child was about nine months

old and was very ill, but the next, a fine little boy of about three years of age, was running about on a Saturday, and on the Sunday was very prostrate, vomiting everything, and on Monday was running about as usual and taking his food well. On Tuesday the coryza set in with the usual symptoms. He was put to bed and treated in the usual way, and on the Friday the rash was pretty much in, and he was apparently getting over the measles very well. He was rather languid, slightly flushed, and disinclined to do anything on the Saturday forenoon; the day before he had taken a little more food than he would have been inclined to have allowed him, and he was afraid it had sickened him, so he had ordered him a dose of castor oil, and on Saturday, though the castor oil operated, he was still very prostrate. At 11:30 on Saturday night he saw nothing to lead him to expect anything special occurring, but on making his round (there were six all laid down with it) before retiring to rest, the boy wakened out of his sleep with a peculiar brassy cough, which he looked upon as a very ominous symptom, and he said to his wife at the time that there was something unusual involving his throat. He had him lifted up, and he found his tonsils covered with a diphtheritic membrane, and he was perplexed what to do under the circumstances. He sent down to Glasgow for Dr. Gemmell who unfortunately was from home, and Dr. Finlayson saw him, who was quite satisfied it was diphtheritic. They adopted the usual precautionary measures. He was given a little chlorate of potash with nitric acid. He gradually got worse, and on Sunday afternoon symptoms of obstruction came on, and Dr. Newman was sent for, who came the same afternoon and put in a tube, but the boy died almost immediately afterwards. On talking the matter over with Drs. Finlayson and Newman, Dr. Finlayson said he had seen a case of a similar kind, and it had also occurred in the family of a medical man; the child there also died. It seemed to him to be a most unusual kind of sequela for measles. It put him in mind of what Dr. Milroy had said about croup following measles. He knew of no cases which were so dangerous as this, in which the throat symptoms were of so distressing a nature. No case of diphtheria was in his family, nor was he attending a case of that disease at the time.

Dr. M^cVail said that in an epidemic he had had in the north of England, in about half of the cases there was great œdema or thickening of the mucous membrane of the trachea and glottis, but there was no evidence of anything diphtheritic. He would be inclined to think that the cases

detailed were something of the same kind. Of course if there was diphtheria in the district, it might have been superimposed upon the other, and though it was rare, it happened now and then.

Dr. Robertson (Hamilton) added that, nearly three months before this case of his occurred, he had been attending a case of diphtheria in the opposite corner of the street in which he was residing. He was not attending any case of diphtheria at the time of the measles epidemic. He had the drains of his house tested, and found them in perfect order.

Dr. M'Gregor Robertson remarked on one or two cases of which he had a very distinct recollection, though they occurred when he was still a student. He saw them with another medical man. There were two cases of scarlet fever occurring in the same house, and both dying within 48 hours—one of them within 24 hours of any symptom of illness. The first was the third attacked in the same house; the second the fifth case in the same house. These two cases had no evident symptoms of scarlet fever, no sore throat, no eruption; the symptoms were cerebral with pronounced vomiting, but he could not remember as to purging. There was intense prostration and rapidly advancing cerebral symptoms. These cases impressed him very much at the time.

In his student days he had to go and assist at a *post-mortem* examination of a child who had died suddenly, supposed from suffocation. It was supposed that some sweetmeat had passed into the trachea. There was very marked hydropericardium. The only light that could be thrown upon the subject was that scarlet fever was in the district: the child, not over well nourished, was playing about in the street half an hour before it died. He wondered whether such a case threw any light on that of *Dr. Wallace Anderson*.

As regards measles, he had a case in a boy of about seven or eight years of age, who had the so-called croupy cough, considerable fever, but no coryza, and who, on the seventh day, was covered with well marked measles rash. Another point of interest in this case was that the patient was said to have had measles in the spring of the same year.

As regards typhoid fever, he thought cases were not few in which there was almost no characteristic symptom except that of the oscillating temperature which, nevertheless, they were bound to treat as ordinary cases of the disease.

Dr. Allan said that with regard to malignant cases of scarlet fever, he did not mean to assert that he had not seen

similar cases to Dr. Anderson's, but only that such cases were comparatively rare.

Dr. Gemmell said he had some experience of cases of malignant scarlet fever such as Dr. Anderson had referred to. He was familiar with instances of children being suddenly seized with vomiting and diarrhoea of a most intractable type, carrying them speedily into collapse and causing death within a few hours. He had known one or two of these cases reported to the authorities as being suspiciously like irritant poisoning. Consciousness might be retained in these cases almost till the close, and at no time need the temperature be highly febrile.

He was familiar, however, with another type of malignant scarlet fever—a type characterised by great exaltation of temperature and much disturbance of the nervous system. He detailed a case in which, in the early portion of the night, a child was seized with convulsions. When called to him, at 6 A.M., he found him very restless and delirious and with a temperature of 110° F., and although by the use of the cold bath the temperature was held somewhat in check, the child died comatose in the afternoon of same day, having been ill about 18 hours. No eruption was apparent, but the connection of the case with the ordinary type of scarlet fever in other members of the family made the presumptive diagnosis very secure. Like *Dr. M'Vail*, he was very chary of believing that mild attacks protect efficiently. Adults often took sore throat, not necessarily of a severe type, when in contact with scarlet fever, and such cases were capable of transmitting scarlet fever of the worst type to unprotected children. Yet he had known such adults, exposed at a subsequent date to the scarlet fever poison, take the disease in its ordinary form.

As regards the measles cases, had he been shown such eruptions without being aware of their association with measles in its ordinary manifestation, he would have said they were probably typhus fever cases. A stumbling block would no doubt have been the length of time that elapsed prior to the appearance of the eruption. But this prolonged prodromal stage might be accounted for by supposing, as sometimes happens, that the later days of the incubation period were attended by symptoms.

Dr. Wallace Anderson replied.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

SESSION 1888-89.

MEETING III.—10TH DECEMBER, 1888.

The President, PROFESSOR GAIRDNER, in the Chair.

I.—A CASE OF MEDIASTINAL TUMOUR (LYMPHO-SARCOMA) INVOLVING THE APEX AND ROOT OF THE LEFT LUNG, IN WHICH SEVERAL ATTEMPTS WERE MADE TO FIND FLUID IN THE PLEURA.

BY JOHN LINDSAY STEVEN, M.D.

DR. STEVEN said that the specimen he presented to the Society was obtained from the body of a patient whom he had been asked to see in consultation with a medical friend. He was anxious to bring up the case because it came very well after the specimen which Dr. R. S. Thomson had shown at the last meeting, and also because it illustrated some of the difficulties occurring in the attempt to accurately diagnose such affections. He had been called suddenly at night to see the patient, and then he discovered that this was not the first occasion upon which he had come into contact with him, for (although Dr. Steven had no recollection of the man) he had officially passed him from the receiving room of the Royal Infirmary into the wards, it being one of the rules of that Institution that no patient is to be rejected as unsuitable for admission by the resident physician of the day until he has been seen and examined by one of the assistant physicians to the house, with whom the final decision lies. The patient remained in the Infirmary during the greater part of August last, and the symptoms and signs of his case were regarded as pointing to pleurisy of the left side. After leaving the Infirmary, the man had been seen on several occasions by his medical attendant, who thought that the phenomena pointed mainly to phthisis pulmonalis, complicated with rheumatism, and sent him to the country, and he was apparently for a time benefited by the change. He soon, however, became very much worse, and, on the morning of the day on which Dr. Steven was called, another medical friend saw him in consultation with his own attendant. It was then thought possible that the symptoms pointed to pleuritic effusion, and with an exploring needle two punctures were made in the

lateral and postero-lateral regions of the left side of the chest. One puncture gave no result, the other resulted in bubbles of air passing into the syringe, but no fluid was obtained. The patient (R. G.) was a butcher, about 30 years of age, married, and of temperate, steady habits.

The condition in which Dr. Steven found the patient was as follows:—He was suffering from extreme dyspnoea, and lying upon the left or affected side; the face presented extreme pallor and lividity of the lips, with cold drops of perspiration on the forehead; there was much oedema of the ankles and body, but it was particularly noted that as regards the head and upper extremities, the dropsy was chiefly limited to the left arm and left side of the neck and head. An enlarged gland could be felt above the left clavicle, and there was the history of a painful swelling over one of the scapulæ, which had been considerably reduced and relieved by blistering. On examining the chest, it was found that there was absolute dulness over the whole of the upper lobe of the left lung in front; in this region also the R.M. and the V.F. were both quite gone; the dulness did not extend, so far as could be made out, across the middle line. In the left axillary region, and at the left base posteriorly, the percussion note was somewhat clearer, and in these regions some breath-sound could be quite distinctly made out. The heart's action was rapid and feeble, and the cardiac sounds were replaced by murmurs, the exact rhythm of which was not determined, but they seemed to Dr. Steven to be mainly mitral in origin. It was thought to be not improbable that some degree of valvular disease might have resulted from the rheumatism. As will be seen from the *post-mortem* report the alteration in the heart sounds was the result of peri- not endocarditis.

The opinion expressed by Dr. Steven was that the case was one of *mediastinal tumour, which had involved the bronchi of the left lung, especially those passing to its upper lobe*. His chief reasons for arriving at this conclusion were the very absolute nature of the dulness, and its limitation to the upper lobe of the lung, the base being left comparatively free, and evidently receiving a fair supply of air; the presence of enlarged glands and painful swellings which might fairly enough be interpreted as secondary in origin; and the presence of the oedema on the left side of the neck and in the left arm. Under these circumstances only palliative measures could be suggested. At the very urgent request, however, of one of his friends, who believed that fluid might possibly be found over the upper portion of the lung, and who was

extremely desirous that no possible chance for the man should be thrown away, Dr. Steven consented to perform another exploratory puncture over the apex. This was carefully done, but the result was negative.

The patient died a day or two afterwards, and the following is the account of the *post-mortem* examination which was performed by Dr. Steven:—

Only the chest was particularly investigated, as the examination was conducted in a small house late at night and under very considerable difficulties.

On removing the sternum a large white nodulated mass, from which on being cut into a white creamy juice escaped, was found occupying the upper portion of the mediastinum. This mass was in close relationship with the upper lobe of the left lung and the upper extremity of the pericardium; and the left lung was found to be very firmly adherent over its whole extent. The right lung was quite non-adherent, and presented nothing remarkable. The liver was studded with numerous small white nodules, one of which was the size of a large hazel nut, and presented all the characters of a secondary tumour. The abdomen was not more particularly examined. As the pericardium was found to be adherent, the heart, tumour, and entire left lung were removed together for more detailed investigation.

The mass occupying the upper portion of the mediastinum is apparently for the most part composed of greatly enlarged lymphatic glands, which have only partially remained isolated from one another; and the whole mass is closely related to the great vessels and bronchi. The left innominate vein is discovered passing along in front of the anterior and upper portion of the tumour, and into the lumen of the vein open numerous radicles, coming from the midst of the tumour tissue. Passing backwards the growth extends underneath the arch of the aorta, and at one point the tumour tissue is firmly incorporated with the arterial wall, so that a distinct depression and puckering of the internal coat has thereby been produced. Passing still further backwards the tumour tissue becomes firmly adherent to the left bronchus, immediately below the bifurcation, although neither the trachea itself nor the right bronchus seems to be in the least involved. Below the bifurcation of the trachea, for a distance of at least 2 inches, the entire wall of the left bronchus is found to have been converted into tumour tissue, so that the mucous membrane has disappeared, and the bronchus at this point is simply a channel through the growth. Below this the bronchi passing to the

lower regions of the lung are found to be comparatively free and patent, but the bronchus passing to the upper lobe, which is given off in the midst of the diseased portion, is almost entirely occluded, and during life very little air could possibly have entered it. At its left border the mass just described is firmly adherent to the anterior margin of the upper lobe of the left lung, so that it is impossible to separate them without tearing the tissue. Inferiorly the mass is similarly adherent to the upper portion of the pericardium, and numerous nodules are found in its tissue, and one or two on the wall of the heart. The mediastinal growth, whose relations have just been described, when viewed from the front is found to be somewhat triangular in shape, the apex of the triangle being superior. After hardening the greatest vertical measurement is found to be 4 inches, the greatest transverse $2\frac{1}{2}$ or 3 inches.

On cutting into the left lung, its tissue in the neighbourhood of the root, and for a considerable distance around this, is found to be converted into a white, soft, almost encephaloid structure. The margin of this morbid area is quite irregular, and extends from the root of the organ chiefly towards the anterior and lateral regions, and not so much towards the base and posteriorly. From the main mass of the new pulmonary tissue the tumour shows a tendency to encroach upon the lung mainly by extending along the walls of the bronchial tubes, and to a much less degree along the vascular walls.

The internal surface of the left lung is firmly adherent to the pericardium, through this aspect of which several nodules project. A recent acute pericarditis, with fibrinous exudation and moderate adhesion, is found to involve the whole of the anterior and left regions of the pericardium, the source of irritation undoubtedly having been the advancing tumour. Several nodules of the tumour are found in the visceral pericardium on the surface of the heart, and almost the entire wall of the left auricle has been transformed into tumour tissue. The valvular structures of the heart are not abnormal.

Under the microscopes were shown sections from the primary mediastinal mass and from the secondary nodule in the liver, and these presented all the typical histological appearances of what is usually described as lympho-sarcoma. From the manner in which the mass invaded the pulmonary tissue, it was at first thought that the tumour might be cancerous, but the microscopic examination disproved this opinion. The *post-mortem* examination also proved that the cardiac murmurs noted during life were due to the pericarditis, and not to any valvular disease.

Professor Gairdner remarked upon the great difficulty of diagnosis in such cases, and he did not know that any one could lay down any set of rules which could be taken as at all definitely applicable in attempts to diagnose them. He told of a case in which he had diagnosed a malignant tumour of mediastum, and which he sent to Sir Robert Christison, in order that he might inform the patient of the gravity of his state. The patient, however, after putting up large quantities of pus on several occasions, quite recovered, resumed his duties, and died many years after of scarlatina.

Dr. Alexander Robertson referred to a similar case of tumour of the right lung, with distention of the veins and great difficulty of breathing, which was at present in his wards.

II.—CASE OF RUPTURED GALL BLADDER, WITH A GALL STONE IMPACTED IN THE CYSTIC DUCT.

BY MR. H. E. CLARK.

A specimen of ruptured gall bladder was shown. The patient, a woman, aged 62, was under treatment in the surgical wards of the Royal Infirmary for a large varicose ulcer of the leg. With rest in bed and appropriate local treatment the ulcer rapidly healed, and was completely cicatrised at the time of her death. During the treatment she had several attacks of jaundice, coming on suddenly, and marked by hyperpyrexia, but not accompanied by any pain in the hepatic region. Under alterative treatment she completely recovered from these attacks, but they were followed by increasing evidences of bronchitis, with the physical signs of hypostatic congestion at the base of both lungs. Three days before her death her breathing became difficult, tongue dry and leathery, pulse feeble, and general condition bad, but there was still no tenderness over the abdomen and no pain. The temperature remained about normal till the evening before her death, when it rose to 101° . At the *post-mortem* examination there was found to be a gall stone impacted in the cystic duct. The gall bladder was not distended, but in the centre of its inferior surface was found a large slough, in which was a rent of considerable size. The parts around the gall bladder were stained with bile, which had escaped in considerable quantity into the peritoneal cavity, and there was localised peritonitis. There was no general peritonitis, and the adhesions in the neighbourhood of the gall bladder were recent and incomplete.

Mr. Clark regarded the case as one of cholecystitis, with sloughing of the wall of the gall bladder and consequent giving way of it. He pointed out that it would no doubt confirm in the minds of his patient's friends the old prejudice that it is dangerous to the life to heal an old standing ulcer. He also referred to a similar case which had occurred in his practice in a patient who had a reducible hernia, and in whom the operation of herniotomy was performed, in the bare possibility of the symptoms being due to sudden strangulation of the bowel, the case being only cleared up at the *post-mortem* examination.

III.—CASE OF NERVE DISEASE, WITH CHOREIC MOVEMENTS.

BY PROFESSOR W. T. GAIRDNER, M.D., LL.D.

The patient, R. W., æt. 54, who was shown, had been twice under observation at an interval of two years, with non-rhythmic involuntary jerkings of the most incoherent and absurd-looking kind throughout the voluntary muscular system, giving rise to a very disagreeable kind of notoriety at the place of the patient's residence. In introducing this man, Dr. Gairdner said in advance that although owing to the extreme and at times ludicrous character of the movements, the patient had been regarded as insane, his conduct in the ward when under careful and constant observation gave no countenance to this impression, about which, of course, patient's feelings had been very painfully excited. There was, nevertheless, a neurotic history, and perhaps a cause to a certain extent of the popular impression in two facts, viz.:—1. That on two occasions many years ago he manifested somnambulistic tendencies (a sister, now dead, having been a much more confirmed somnambulist). 2. That, *on one occasion only*, in 1884 (when he is suspected to have been under the influence of some narcotic administered medicinally), patient was for a single night subject to delusions which brought him in contact with the police. The chorea-like jerkings became at this time very much aggravated, and it is scarcely surprising that the two facts thus became associated in a way to subject him to the painful imputation of being permanently "out of his mind"; his own recollection, however, connecting the disease with a cause much further back, viz., an accident in a coal-pit 18 years ago, which caused him both physical injury and moral perturbation and alarm. Ever since this, his right arm and hand have been so unsteady as to cause a difficulty in signing his name; and from the

right arm the twitchings have gradually extended over the whole body, and become much more violent, so that it can hardly be affirmed that any limb or part is better or worse than another. Pains in the head of a severe kind attended the disease at one time, and in 1884 caused him much loss of sleep; but these have now almost ceased. The disease in general resembles chorea much more than any other convulsive affection or tremor; and, like chorea, is suspended during sleep. Chloral-hydrate suspends the movements, but only so long as its action is maintained so as to simulate sleep; other remedies, as far as tried, have had absolutely no effect. There is no ground for suspecting venereal disease, nor excesses of any kind. The family history otherwise is unimportant. It should be added that both the speech and the gait are considerably, but not very definably, affected. The deep reflexes, however, are normal. The bodily health, apart from the muscular weakness, is fairly good. Specimens of an abortive attempt to sign his name were shown. (See Journals of Ward I, Western Infirmary, LL, p. 176, and RR, p. 83.)

Dr. George S. Middleton said that this was the fourth case of the kind which he had seen, and that some of these had been under his care in the Royal Infirmary Dispensary.

Dr. J. Lindsay Steven referred to a case, in many respects very similar, which occurred in a nursing woman, who had consulted him at the Royal Infirmary Dispensary. In this case the movements passed off in the course of a few weeks under treatment.

Dr. Robertson considered that the patient's movements were choreiform in their character. The groups of muscles involved in this disease varied greatly in different cases. The disorder, besides occurring in its ordinary general form was unilateral, or nearly so, in some patients, whilst in others it affected the upper or the lower extremities much more than other parts. It would be noticed that there were no disorderly movements in the patient's face and that there was no distinct defect in articulation. In accordance with its most recent pathology, it was a disease of motor convolutions. The differentiation of the parts affected in different cases could be readily understood on this view. In this patient the centres (so-called) of the arms would be affected most of all, while those for the face did not appear to be implicated. In regard to his mental condition, the patient was certainly not insane, but his general excitability showed that there was a disposition to disorder of the mind.

IV.—CASE OF MOBILE SPASMS (ATHETOSIS).

BY ALEXANDER ROBERTSON, M.D.

Dr. Alexander Robertson gave a fuller account of the patient shown at last meeting as a case of "urgency." His age is 33, and he has suffered from the disorder since infancy. There had been what was deemed an attack of jaundice when only a fortnight old, and this is believed to have some connection with the spasms. During his boyhood the irregular movements had not been so striking as in later years. They affected the muscles of the face (but not of the eyes), those of the neck and of the upper extremities; to a like extent the muscles of the trunk and slightly those of the legs. The contractions do not occur during sleep, nor when out of bed or moving about, except to a slight extent, but as soon as attention is directed to them they are very strongly developed. Then, as the Society saw, the contortions were very striking. It was pointed out that when asked to stretch out his hands the fingers, which were partially bent by spasmodic contractions, were slowly and irregularly extended. He can walk without apparent difficulty or marked defect, but his legs are somewhat weak. The muscles of the neck become very firm, the one side more than the other generally, causing corresponding deviations of the head. Sensation was found to be unimpaired. Even as a child there had never been any paralysis of the bladder or bowels, and he continued to have full power over these organs. He had never been able to speak and could only produce a guttural sound. His hearing is defective, but he is not deaf. His other senses are apparently normal. His relatives regard him as of weak mind, and in illustration said that when a big boy he was fond of playing with young children. At the same time his conduct has always been rational, and his intelligence is greater than could have been readily supposed from his appearance. This is shown by his being able to play at dominoes and draughts, and he is said to be a good player. When at the games he has no great difficulty in picking up his "men" and putting them into position on the boards. Though not now paralytic, and as stated, only a little weak in walking, he is said to have walked none till he was fourteen years of age. His grasp, notwithstanding the spasms, is firm, and his brother considers his arms to be very strong. His special senses are correct. He is one of a family of nine, all of whom were healthy except a sister, who died at 8 years of age, and had suffered from contortions like those of the patient.

V.—TUMOUR OF THE BRAIN IN A CHILD.

BY JAMES FINLAYSON, M.D.

PATHOLOGICAL ACCOUNT BY JOSEPH COATS, M.D.

Dr. Finlayson showed the tumour and said that it was evidently a large scrofulous deposit, involving all three lobes of the cerebellum and extending towards the pons and the medulla oblongata, so as to implicate seriously the fourth ventricle. It extended forwards also as far as the corpora quadrigemina, and these structures were implicated on both sides. When removed the sensation given to the finger was that the tumour was chiefly in the left lobe of the cerebellum, and over the upper surface of the cerebellum, on this side, adhesion to the occipital lobe of the cerebrum existed, and a slight extension of the disease could be traced there. Some adhesion of the dura mater, at the left lateral aspect of the cerebellum, was also present. It was apparent, on further examination, that the tumour extended not only to the middle lobe but also to the right lobe of the cerebellum, and the great extent of this was seen on a section being made horizontally, as shown in the specimen. The ventricles of the brain were much distended with fluid, and the surface of the brain was dry looking, but no tubercular meningitis was present, and no scrofulous deposits were found in the cerebrum except to a very slight extent, as already mentioned. The superior longitudinal sinus was occupied by a thrombus in its whole length, and in the torcular Herophili an old and somewhat decolorised clot was present.

The left lung was non-adherent and normal, but the right was very firmly adherent throughout. At the root of the right lung an abscess cavity was found communicating with a large bronchus having sacculated dilatations full of creamy pus. A caseous nodule was found in the left kidney.

The other organs did not call for remark.

A S., a boy four years old, was admitted to the Children's Hospital, on 11th July, 1888. His health had not been very good for fifteen months, and in May he had been sent to the country as he was weakly and disinclined to walk. About fifteen months before admission, he complained much of headache, and vomiting was of frequent occurrence. He seemed little disturbed by the vomiting, and often took food quite readily soon after it. The pain in the head was evidently at times severe, and he persistently referred it to the occipital region, and even to the right side of this part. There was a

history of a fall, to which the parents attributed the pain when it came on. After his return from the country his power of walking was found to be practically lost. On admission he could not stand alone, and on trying to get him to walk, with support on both sides, he threw the one leg in front of the other and lifted the feet up too high. The left leg seemed the worse and was more unsteady than the other. The arms and the grasp of the hands were feeble, and in trying to catch an object both trembled. Here also the left side seemed rather the worse. He could not sit up in bed alone, unless propped up; even then he inclined to fall towards the left side. The limbs were not rigid on admission, and no increased knee-jerk or ankle-clonus could be made out. He had then power over the bladder and bowel. The bowels were constipated. No albumen or sugar could be found in the urine. There had been no convulsive seizures and none occurred during his stay in the hospital.

The face presented an indication of partial paralysis in the right side, but very trifling in degree. There was an internal squint, quite recognisable at times, but at others, scarcely to be made out. It seemed to be alternate in character, and could not be proved to be definitely paralytic. The right pupil was usually larger than left. There was nystagmus in both eyes. The vision was not very markedly defective, but on ophthalmoscopic examination, by Dr. Reid, there was found neuro-retinitis, with considerable exudation over the disc and beyond it.

The hearing seemed normal, and no discharges had been present in the ears. The speech, on admission, was not badly affected, but had a drawling character. There was no paralysis of the tongue, or of the palate, or of deglutition. The child seemed to notice things in the ward, but did not say much. The family history seemed good; his parents were alive, and the other three members of the family were all living. An examination of the chest showed nothing wrong.

After admission the symptoms varied, and the frequent vomitings ceased in a few weeks. The child, at the same time, became more drowsy, and incontinence of urine occasionally occurred. The speech became thicker and less intelligible. The state of the eyes remained pretty much as stated, except that ptosis, on both sides, seemed to come and go. The right pupil remained the larger.

Two months after admission a spastic state of the legs and also of the arms supervened, and the general intelligence was dulled. In the course of another month the power of

swallowing was almost entirely lost. A new feature appeared about the same time—viz., sweatings on the right side of the face, of a very definitely unilateral character. For the last month of life the child was expected to die almost daily, and detailed examination of the chest was therefore omitted. Occasionally a little fluid could be swallowed, but often none. Nutrient enemata were used.

The head became obviously enlarged during his stay in the wards, but not extremely so.

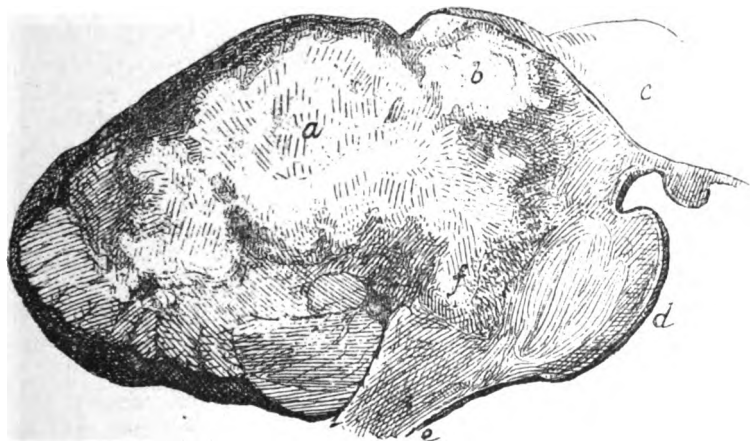
The temperature throughout was but little disturbed till near the end. Occasional sub-febrile temperatures of about 100° F. (in the rectum) occurred, and once or twice 101° F. About the middle of October, a markedly febrile paroxysm occurred, lasting a fortnight, with temperatures often reaching 104° F. This was followed by collapse temperatures during the last 12 days. He died on 13th November, 1888. This febrile paroxysm was probably connected with the suppuration found in the chest, but no clinical data can be given as to this.

The percussion of the skull was practised on admission (when the head was noted as $21\frac{1}{2}$ inches in circumference), and the sound elicited had that curious character suggestive of a cracked vessel, or giving the idea of the bones at the sutures rattling on each other. At times a more resonant, or quasi-tympanitic, note was found (as described by Dr. Macewen in such cases), but towards the end of the case, when the head was more enlarged, the child could not well be raised to a suitable position for percussion, and percussion sounds with the head on pillows are very deceptive. At the *post-mortem* examination, when the scalp was reflected, percussion was practised, and the cracked sound, as if the bones at the sutures were rattling, was educed; and, indeed, although the sutures seemed at first to be united normally, the parietal bones were seen to move during the percussion, the fontanelles were covered in by membrane only, and at the sagittal suture and the coronal suture the bones were really connected by membrane. The bones of the calvarium were thin.

Dr. Finlayson said that the occurrence of unilateral sweating on the right side of the face was not observed by himself, but it was so carefully noted by Dr. Middleton (who was then on duty), and also by others, that there could be no doubt of its presence. Dr. Finlayson was not aware of its having been noted among the symptoms of tumour of the brain; certainly he had never seen it himself. In the present case, however, the co-existence of mischief in the right pleura, which probably began or became aggravated about the same time, suggested

the idea of some implication of the sympathetic there as a possible cause. It is to be remembered that throughout the right pupil was enlarged rather than contracted, and this suggested, with other symptoms present, a paralytic affection of the third nerve rather than of the sympathetic on that side on admission.

With regard to the diagnosis, Dr. Finlayson said that he at once made a diagnosis of tumour of the brain when the child was brought for advice, and on this account recommended his admission ; the persistent headache, the very frequent vomiting, the weakness of the legs gradually increasing, the shakiness of the four limbs, the drawling speech, the nystagmus, the strabismus, and the optic neuritis (ascertained soon after admission), seemed to him to make the diagnosis plain, in the absence



of any other ascertainable cause. The localisation of the tumour seemed too uncertain to allow him to pronounce an opinion upon it, and it could not even be stated with any certainty on which side of the brain it was ; the child referred the pain to the right occiput, and the paralytic symptoms seemed more marked in the left limbs, and these facts pointed to a right-sided lesion. On the other hand, the symptoms were really bilateral, and this with the site of the pain, the great unsteadiness, and the ocular symptoms, suggested the cerebellum, but no satisfactory opinion could be arrived at. The tumour certainly seemed more bulky, and, from the adhesion at the upper part, more active in its growth in the left lobe of the cerebellum, but it was not quite clear where it began, or at

what periods the various parts had become implicated. The middle lobe of the cerebellum was probably affected before the child was admitted with the pronounced symptoms detailed.

The following details of the tumour were noted by Dr. Coats, who made sections and had drawings prepared both of the vertical and horizontal sections, the former of which is shown on the preceding page.

DR. COATS, in giving an account of the tumour in Dr. Finlayson's case, said—The cerebellum has been exposed by a median and by a horizontal section. The tumour thus displayed is a somewhat extensive one, having its seat chiefly in the upper and anterior parts of the organ, but extending downwards and backwards, as will be more particularly detailed hereafter.

The tumour has the typical character of the solitary tubercle of the brain. It consists mainly of a greenish yellow caseous material, which in some parts shows signs of crumbling, especially at its anterior part. In nearly every part there is a zone of a greyish transparent appearance outside the caseous mass, but this is generally very narrow and sometimes scarcely visible. The tumour is somewhat lobulated and the grey tissue is sometimes continued inwards from the borders of lobules so as partially to divide the main mass. There is, indeed, in front, a mass which as seen in median section is almost surrounded by grey tissue. The cerebellar tissue around the tumour shows an area of distinct softening, which is most manifest at the inferior border anteriorly.

On median section the tumour is seen to occupy about three-fourths of the exposed area of the cerebellum. It forms a mass whose greatest diameter from before backwards is $2\frac{1}{4}$ inches and from above downwards $1\frac{3}{4}$ inches. It is close to the upper surface of the cerebellum where the dura mater is adherent, but it penetrates deeply, its deep border forming a somewhat irregular outline. It is least extensive posteriorly, so that for the posterior two-thirds of the cerebellum there is about half an inch of tissue between tumour and inferior surface. In front of this, however, there is a prolongation downwards, which seems to project into the fourth ventricle, its summit being about the junction of pons and medulla, both of these parts being apparently pressed on by the tumour, and their tissue softened on their upper aspects. At the upper part, in front, the tumour has extended to the corpora quadrigemina, which are expanded by the tumour into a body about

three-quarters of an inch in diameter. It is this part which is mentioned above as being surrounded by a transparent zone and forming a separate lobule.

On horizontal section it is seen that the tumour is mainly in the left lobe of the cerebellum, but extends somewhat beyond the middle line, forming a very sinuous edge. It does not quite reach the external border of the left lobe, and its further extension to the right of the middle line is about $\frac{3}{4}$ ". The greatest transverse diameter is $2\frac{3}{8}$ ". The tumour does not reach the posterior aspect of the cerebellum, there being generally about half an inch of tissue, but sometimes considerably less behind it. In front it extends quite to the anterior extremity of the cerebellum in the middle line, and there are two partially isolated outposts in the peduncles. It does not reach the third ventricle, which however is obviously dilated. The greatest measurement from before backwards, including the outposts just mentioned is $2\frac{1}{4}$ ".

Dr. G. S. Middleton did not agree with Dr. Finlayson in thinking that the unilateral sweating was caused by interference with the sympathetic in the right pleural cavity. He thought that the unilateral sweating in this case might be due to pressure upon the pons.

VI.—MICROSCOPICAL SECTIONS OF VERY MINUTE PYÆMIC ABSCESSSES IN THE LIVER FROM A CASE OF CARCINOMATOUS ULCERATION OF THE COLON.

BY DR. JAS. FINLAYSON.

Dr. Finlayson gave some account of the specimens shown, referring the members to his paper in the *Lancet*, 13th October, 1888, "On the Occurrence of Pyrexia, Shiverings, and Pyæmia in cases of Malignant Disease."

Mr. Maylard wished to know whether, in one of the other cases mentioned by Dr. Finlayson, where there was carcinoma of the head of the pancreas associated with pyæmia, there was any ulceration into the intestine or into the duct of the pancreas? He asked the question, because, like the case brought forward, it would explain the way in which septic infection had taken place. In the case under discussion the course of events seemed pretty clearly defined. There were extensive ulcerations in the colon, and there were numerous minute abscesses in the liver, with none so far as could be made out elsewhere. Thus the ulcer had proved the seat of inoculation, and the portal system was the direct means of communication with the liver. He also mentioned a some-

what similar chain of events which had been recorded in the case of an ulcer in the cæcal appendix. A pin had become impacted in the appendix and thickly coated with phosphates. It had given rise to ulceration, and the symptoms were those of pyæmia. At the *post-mortem* abscesses were found in the liver. Mr. Maylard thought it not unlikely that in all cases of carcinoma, associated with rise of temperature, rigors, and other symptoms of pyæmia, ulceration would be found on some exposed surface where septic infection could take place.

Dr. Finlayson replied, that in the case referred to by Mr. Maylard, the tumour infiltrated the walls of the duodenum, but there was no ulceration on the free surface of the mucous membrane. He could not say whether the duct of the pancreas had been ulcerated into.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

SESSION 1888-89.

MEETING III.—28TH NOVEMBER, 1888.

J. STUART NAIRNE, F.F.P.S. (Glasgow), *in the Chair*.

I.—MYOMA OF UTERUS.

DR. W. L. REID showed a myomatous polypus recently removed with the galvanic *écraseur*. The cervix had about a month earlier been divided with scissors, a method of procedure he had frequently found effectual in checking hæmorrhage. The myoma soon after became polypoid, and was easily removed with a new and simplified *écraseur* which he showed.

II.—KNOTTING OF UMBILICAL CORD.

1. DR. M. CAMERON showed a cord so tightly knotted as to cause the death of the fœtus.

2. DR. G. A. TURNER showed a cord with several complicated knots.

3. DR. LAWRENCE OLIPHANT showed twin cords firmly tied together in two places. A committee was appointed to report on this case, as some of the Fellows were sceptical about the observation. The children were born in the street, while the placenta was delivered in the hospital. In the discussion which followed, most of those present thought that true

knots were less common than the ratio given in the text books.

III.—DOUBLY FLEXIBLE KNEE JOINT.

DR. G. A. TURNER described a child born with one knee doubly flexible. No surgical injury could be detected, and the condition had entirely disappeared at the end of six weeks.

IV.—PRESIDENT'S ADDRESS ON OÖPHORECTOMY.

The President then delivered an address on lessons in oöphorectomy. He gave an abstract of fifty consecutive cases, and described in detail several of the cases, and his mode of procedure. He removed only the diseased ovary, and in certain cases contented himself with puncturing the small cysts, and returning the ovaries into the abdominal cavity.

In one case, the patient stated she had been unable to submit to intercourse for years. It was eight years since the birth of her last child. She turned out to have been pregnant at the time of operation. Mr. Nairne stated that he had in the press a work giving details of all his cases.

REPORTS OF HOSPITAL AND PRIVATE PRACTICE.

GLASGOW ROYAL INFIRMARY.

REPORTED BY E. H. LAWRENCE OLIPHANT, M.D.

CASE OF PYO-PNEUMO-THORAX (RECOVERY).—[Under the care of Dr. Samson Gemmell and of Dr. Fleming.]

W. K., æt. 18, hammerman, was admitted to Ward III on 27th April, 1888, complaining of cough and of general weakness.

His family history was good. There was no history of phthisis. His previous health had also been good.

His illness began, five weeks before admission, with an attack of pleurisy on the right side. On admission, he was pale and emaciated; perspired much; slept little; had no appetite; coughed a great deal. There was a somewhat hectic flush on his cheeks. His fingers were clubbed. On the whole, his appearance was one strongly suggestive of phthisis.

On the *right* side of the chest marked flattening and very defective expansion on deep inspiration were observed. *Over the front* of the right lung the percussion note was somewhat

tympanitic, and the upper border of liver dulness was not depressed. The respiratory murmur was markedly deficient, becoming tubular lower down. Vocal resonance and fremitus were increased. There was a little moist râle above the clavicle. On the same side, *behind*, the percussion note was impaired from apex to base. At the base it was absolutely dull. The respiratory murmur was deficient in the upper half, and typically amphoric in the lower half, of the interscapular region. This last feature of the case was most marked at a point $1\frac{1}{2}$ inches below the inferior angle of the right scapula, and here metallic tinkling was occasionally heard. At the extreme base respiration was inaudible. Hippocratic succussion was brought out only on pretty violent shaking, and from the character of the splashing it was thought likely that the fluid was of a viscid nature. *The left lung* was practically normal. *The urine* had a trace of albumen in it. His temperature on admission was 104° . For the next four weeks it kept running up at night, often as high as 103° ; in the morning dipping nearly to normal.

On 29th May, Dr. Fleming introduced a trocar into the lower posterior aspect of the right back. Seventeen ounces of pus were drawn off by aspiration, and 1 ounce of glycerine with 10 per cent of iodoform was injected. The same afternoon, the odour of iodoform was detected in the patient's breath and sputum, and he complained of a bad taste in his mouth. The cough became easier and less frequent, and the expectoration diminished in quantity and consisted now of frothy mucous. The temperature was practically uninfluenced. By 6th June, the expectoration had again become purulent, and next day Dr. Fleming removed about 1 inch of the seventh rib in the lateral region and evacuated 20 ounces of pus. The cavity was washed out with boracic solution, and a large tracheotomy tube was inserted for drainage. His temperature the same evening had reached 103° ; otherwise he was fairly well. He was dressed every day till 15th June, the temperature continuing very erratic. His diet consisted chiefly of brandy and milk. Nutrient suppositories were also given.

On 21st June, the cavity in the thorax was again washed out with boracic solution; the drainage tube removed; and the wound strapped. By 9th July, his temperature was quite normal, and he had gained greatly in flesh and strength. He continued to progress slowly, and on 16th October, his condition was as follows:—

The wound in the chest had healed; he had become much

stronger and stouter, &c., and slept well; did not perspire, and had but little cough. The chest measurements were:—

	Left Chest.	Right Chest.
At the nipple line, ...	14 $\frac{1}{4}$	14 $\frac{1}{4}$
At the level of the seventh dorsal spine, ...	14 $\frac{1}{2}$	14 $\frac{3}{4}$
At the level of the tenth dorsal spine, ...	13 $\frac{1}{4}$	13 $\frac{3}{4}$

The expansion of the right side, on inspiration, was very good; both in its lateral and antero-posterior aspects. Looking at the chest, as he lay flat on his back, it could hardly be said that the symmetry of the chest had been disturbed. The percussion, *in front*, was practically identical on both sides; the upper limit of liver dulness was 2 inches below the nipple. *Behind*, the only departure from the normal quality of percussion note, was in the extreme right base, where for about 1 $\frac{1}{2}$ inch vertically, the note was comparatively dull. Auscultation showed the respiratory murmur all over the right side to be quite normal; and there was a total absence of râle even on deepest inspiration. The temperature was normal; the urine had no albumen in it.

He was dismissed well, 9th November, 1888.

CASE OF PYO-THORAX.—[Under the care of Dr. Oliphant and of Dr. Macewen.]

M. M., aged 23, a shop girl with very long hours at work, was first seen on 24th May. She was "run down" in general health, and had that morning been seized with violent pain in the right side. Her breathing was short and catchy, pulse was 120, temperature 102°. On examination, nothing abnormal was discovered in the lungs. On the following day, there was abundant friction râle audible over the base of right lung anteriorly. This was followed in two or three days by the onset of effusion which rapidly filled up the right pleural sac. Percussion dulness extended to the second rib anteriorly, and there was entire abolition of breath sounds and of vocal resonance and fremitus in that area as well as at the base of the scapula posteriorly. The apex beat of the heart was about half an inch to the left of the nipple line; the pulse was occasionally intermittent in spite of the exhibition of strophanthus, digitalis, and alcoholic stimulants, and remained very rapid, running from 120 to 140. There was little pain, cough, dyspnoea, or other distress, except when the patient attempted to lie on her left side, at no time except on the day previous to the onset of the pain had there been any shivering. On the 3rd June, she was seen by Dr. S. Gemmell, who found the physical conditions very much as described above. The

rapidity of the pulse was thought suggestive of the possible onset of myocarditis. She had been up to this time treated with cardiac stimulants and diuretics. Blisters were at no time applied. The patient remained in *statu quo* till 19th June, when Dr. Gemmell aspirated and found the fluid to be purulent. It was at once agreed to have the chest opened surgically. She was accordingly sent into the Royal Infirmary, where, on the 22nd June, Dr. Macewen resected a portion of two ribs at the right base. The ribs were removed subperiosteally, the inner layer of periosteum and the parietal layer of pleura being incised only after the cut surface had been well dusted with iodoform. A large quantity of pus was removed, and some large pieces of flaky lymph were washed out with the douche. After the operation the evening temperature continued to rise to 101° or 102° ; and the pulse remained rapid. She gradually gained strength and weight, and is now treated as an out-patient. On the 25th December, 1888, six months after operation, her condition is as follows:—The wound in the side is still open, and leads into a straight narrow sinus about three inches deep. The left lung is practically normal, and the heart is in its normal position; pulse about 120. The expansion of the right side of the chest is very deficient, especially at the apex; the percussion note on the right side in front is quite normal as far down as the fifth rib, where it becomes dull. Over this area the breath sounds are weak but normal in character, and there are a few fine crackling râles; over the dull area the breath sounds are absent. Behind, on the right side, there is absolute dullness below the middle of the interscapular region, above this the percussion note is impaired. Above the breath sounds are weak but otherwise normal, below they are entirely abolished. During the last few days the evening temperature has been usually above the normal, on one occasion touching 104° .

In the case of W. K., the general condition caused grave apprehensions to be entertained that the patient was tubercular, but it was obvious that he was fast sinking, and the operation was advocated as affording the only hope of recovery. The chief point of interest in the case of M. M. is the entire absence of any sign or symptom suggestive of the effusion becoming purulent. The high pulse-rate which caused anxiety seems to be in large measure natural to the patient. Her continued high evening temperature is the only condition suggestive of bad ultimate prognosis which, in view of a tubercular family history, must be considered grave, in spite of the great improvement in her general condition.

ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

MATERIA MEDICA AND THERAPEUTICS.

By C. O. HAWTHORNE, M.B., C.M.

Action of Strophanthine on the Heart and Circulation.—M. G. Sée and M. Gley have communicated to the Académie de Médecine the results of an investigation they have made concerning the action of strophanthine. A dose of $\frac{1}{5}$ milligramme administered subcutaneously caused in about six minutes stoppage of the heart of a frog in a state of systole. The heart muscle was found to have completely lost its excitability, responding neither to mechanical nor electrical stimuli, and the same results were produced when destruction of the bulb and the medulla preceded the administration of the drug.

In the experiments upon rabbits and dogs, strophanthine was injected into the veins, the dose varying from $1\frac{1}{2}$ milligrammes for the former to 4 milligrammes for the latter. The following phenomena were observed:—Shortly after the injection there was more or less marked slowing of the heart, with considerable elevation of the blood pressure; then, for some moments, the heart beat more rapidly. This first period was followed by a second, which lasted until the heart ceased to beat, and which was characterised by irregular cardiac action, short phases of acceleration, with more prolonged periods of retarded action and abortive contractions, were noted.

During all this time the blood pressure remained very high, and it was only towards the end that it fell somewhat. Sometimes there was a further marked elevation preceding the sudden fall due to the stoppage of the heart. These variations in the blood pressure thus occurring without relation to the modifications of the action of the heart, it is concluded that strophanthine has some direct action upon the vaso-motor apparatus, leading to constriction of the arteries, and a consequent rise of blood pressure. Further, this increase of arterial pressure was found to occur in the vessels of a limb even after section of the bulb and complete destruction of the nerves of the part. Hence MM. Sée and Gley consider that, though strophanthine may to some extent influence the vaso-motor centres of the bulb and medulla, it certainly has also a direct action either on the nervous ganglia or on the muscular fibres of the arterial coats.

These observers also state that strophanthine diminishes the size of the kidney by causing contraction of its blood-vessels. At the same time the urine is reduced in volume, the quantity excreted being a third, and sometimes a half less than the normal amount.

M. Sée has given strophanthine to patients in doses varying from one-fifth to two-fifths milligramme. He reports as follows:—In cardiac failure of mitral origin, especially when following mitral insufficiency, the effect is certain and is most distinct. The pulse becomes regular, dyspnoea ceases, and diuresis is established. Similar results are produced in cases of simple cardiac dilatation. On the other hand, in aortic lesions strophanthine has no beneficial action. In angina pectoris it has even produced injurious effects.

M. Dujardin-Beaumetz, in speaking upon this subject, drew attention to the fact that there are several different varieties of strophanthine in existence, and as these probably produced different effects, he did not consider strophanthine a substance which could be safely prescribed.—(*Gazette des Hôpitaux*.)

Papain as a Digestive Ferment.—Dr. Grineritshi highly recommends the employment of papain in dyspeptic conditions characterised by an habitual failure of digestion, by acid eructations and by the painful symptoms of gastric fermentation. He administers in such cases 10 to 15 centigrammes

of papain (Finkler) mixed with 25 to 30 centigrammes of sugar of milk. This dose is taken an hour or two after food in a tablespoonful of an alkaline mixture containing bicarbonate of sodium, carbonate of ammonium, carbolic acid, and glycerine. Dr. Grineritshi states that the pain due to acid fermentation is by this treatment completely relieved, the excess of acid being neutralised as digestion proceeds. He considers that papain is without a rival as a digestive ferment, and reports the cure by its use of the most obstinate cases of chronic dyspepsia even though associated with pain and with constipation of the bowels. The above treatment is of course accompanied by the usual dietetic and general hygienic directions.—(*Bulletin Général de Thérapeutique.*)

Elixir to Conceal the Taste of Quinine.—At the last meeting of the American Pharmaceutical Association, Mr. F. L. Stevens reported a number of experiments he had made with a view to conceal the bitter taste of quinine. He recommended the following elixir :—

AROMATIC ELIXIR OF ERIODICTYON.

SYN.—*Aromatic Elixir of Yerba Santa.*

Fluid Extract of Eriodictyon, ...	1 fl. oz.
Syrup, ...	8 fl. ozs.
Pumice, in fine powder, ...	$\frac{1}{2}$ tr. oz.
Carbonate of Magnesium, ...	80 grains.
Comp. Elixir of Taraxacum enough to make	16 fl. ozs.

Mix 7 fluid ounces of the elixir of taraxacum with the syrup and pumice, then add the fluid extract and mix thoroughly. Shake occasionally during a few hours, allow it to settle and carefully decant the liquid into a funnel, the neck of which contains a pellet of absorbent cotton. Afterwards add the dregs and allow them to drain. To the filtrate add the carbonate of magnesium and shake occasionally during several hours. Let the mixture stand at rest during 12 hours, then decant the liquid and filter it through paper. To the filtrate add sufficient compound elixir of taraxacum to make 16 fluid ounces.

It is stated that 1 fluid drachm of this preparation, mixed by agitation with 5 grains of sulphate of quinine, *without* the addition of any diluent or acid, will so cover the bitterness of the quinine that even an expert will scarcely detect it.—(*American Druggist.*)

Pyrodin as an Antipyretic.—This substance has been tested clinically by Dr. Dreschfeld, of Manchester. He finds that it is a powerful antipyretic—more powerful than either antipyrin, antifebrin, or phenacetin—and is specially applicable in cases of pneumonia, scarlet fever, and typhus. It produces marked perspiration, but no nausea, vomiting, or collapse. The dose for children is 3 to 4 grains, and for adults 8 to 12 grains. It should not, unless the temperature be very high, be given oftener than once in every 18 or 24 hours, nor should its use be continued for more than a few days. In doses repeated at short intervals it has a toxic effect, producing hæmoglobinuria.—(*Med. Chron. and Pharm. Journ.*)

Oxalate of Cerium for Cough.—Dr. Cheesman, of New York, calls attention in the *Medical Chronicle* to the value of this salt as a remedy for cough. He recommends its use in all stages of phthisis, but especially for the relief of the irritant cough of the early stage. The dose Dr. Cheesman commences with is 5 grains, but he increases this to 10 or even to 20 grains if necessary. He obtains the best results when the salt is administered on an empty stomach, and in fairly large doses, rather than in frequently repeated smaller doses. The same substance has also been successfully employed in chronic bronchitis, spasmodic asthma, whooping-cough, and measles. Being insoluble, the oxalate is best administered suspended in a little water.—(*Pharm. Journ.*)

MEDICINE AND PATHOLOGY.

By R. STEVENSON THOMSON, B.Sc., M.B., C.M.

Concerning the Origination of Human Diphtheria from a Similar Disease in Birds.—At the time when Nicati published some statements tending to demonstrate the identity of the contagious element of diphtheria in children and chickens, Mâgnin, as the result of numerous observations and microscopical investigations, also published statements denying such identity. This was in 1879. Since that time, thanks to the development of bacteriology, Loeffler, and Cornil, and Babés have shown the almost complete identity of the bacilli found in the false membranes of children and birds. More recently this statement has been confirmed by the investigations of Menziés, Delthil, Pamard, Bouchard, and Leissier. Menziés has endeavoured to show that diphtheria was caused by the dejections of birds, through the medium of water which has percolated through the deposits of dove houses or poultry yards into wells. In the epidemic, which was reported by the author, the atmosphere seems to have been the medium of propagation. He believed that the disease was carried to the island in which the epidemic occurred, and in which nothing of the kind had previously been known, by diseased turkeys. In the course of five months 125 of a population of 4,000 were attacked with diphtheria, and 36 of them died. This island was in the northern part of the Greek Archipelago, Skiatoes by name, and the epidemic continued during five months of the year 1884. The diseased turkeys showed false membranes of a gray colour upon the velum of the palate and upon the pharynx. In one of them the process extended to the larynx; the membranes were not very closely adherent, and could be readily removed. The underlying mucous membrane bled but little, and the glands of the neck were not very much swollen. In one of those which recovered there was paralysis of the feet, and the animal was unable to walk. The conclusions which were drawn from this epidemic were:—

1. There is in turkeys a kind of diphtheria which resembles that which occurs in human beings in its symptoms, its evolutions, and its gravity.

2. Its virus may be transmitted by the atmosphere to man, communicating the disease to him, and then developing into an epidemic.—PAULINIS.

The Modifying Influence of Malaria upon Enteric Fever.—The question of the existence of an antagonism between malaria and enteric fever has been much discussed and various opinions have been given (v. Hirsch's *Geographical and Historical Pathology*, New Syd. Soc., 1883, vol. i, p. 684). Dr. E. S. Whittier, in a paper read before the Boston Society for Medical Improvement, 13th February, 1888, recalls attention to the fact that they may be combined, a co-existing typhoid element rendering the periodicity of a malarial fever much less marked and diminishing the influence of anti-periodic remedies, or a malarial element modifying considerably the course of a case of enteric fever. "In 1876, Dr. Woodward read before the International Medical Congress at Philadelphia, his paper, now classical, on what he termed typho-malarial fever, and he cited of uncomplicated typhoid fever, occurring during the war, 80,272 cases, with a mortality among white troops of 35·89 per cent, among coloured troops of 55·68 per cent; while of the compound disease 57,400 cases are cited, with a mortality among white troops of 8·13 per cent, among coloured troops of 17·37 per cent." Dr. Whittier traces the influence of a distinct malarious invasion of Boston and its vicinity, where malaria is not endemic upon the enteric cases occurring there within recent years, and gives clinical histories and temperature charts of cases. Dr. John A. Jeffries also gives some cases in the *Boston Med. and Surg. Jour.* for 26th April, 1888.

Dr. Whittier says—"I have traced with extreme care the malarial movements eastwards, until I am satisfied that it has effected an important change in the symptomatology of typhoid fever in Boston and vicinity, and that an etiological factor of much significance has recently been added to modify the course of our chief continued fever. . . .

"I think there is warrant for the opinion that the typhoid process is so modified by the malarial influence as to be stripped of some of its most dangerous features.

"It is an endemic infectious fever, whose pathology finds constant expression in lesions of the intestinal mucous membrane, of Peyer's patches, enlargement of the spleen, and secondary changes in the mesenteric gland; a fever whose natural course varies from that of typhoid fever because it is modified by the earth-born poison, the miasm of malaria with which its initial cause blends.

"The strong diagnostic points are that typhoid fever of considerable duration is modified in its history and has added to it chills of varying periodicity, generally tertian in type, however, not followed by evidences of inflammation either thoracic or abdominal, but accompanied by temperature changes of wide range, with distinct intermission, and requiring active measures to prevent collapse, because of a tendency in that direction, in degree proportionate to the existing exhaustion, induced by the pre-existing antitiding typhoid fever process."—(*Boston Med. and Surg. Journal*, 8th March, 1888.)—D. M.P.

The Treatment of Whooping-Cough. Sonnenberger (*Centr. f. Kinderh.*, October, 1887.)—The writer, after reviewing the various methods of treating whooping-cough hitherto followed, concludes that local treatment has never shown any very brilliant results on account of the difficulties attending its application, and therefore gives his adherence to internal medication. His favourite remedy is antipyrin, which has been used by him in about seventy cases. The dose ranged from .01 gramme in children to 1 gramme in adults, administered thrice daily. The best results were got when the drug was begun early in the disease and combined with favourable surroundings. In those cases in which it was given from the beginning of the disease, the course was a very mild one, running from three to five weeks, the number of paroxysms being six or seven daily. In the later stages it seemed to diminish the violence of the paroxysms very quickly, and their frequency after a few days. It is to be noted that the hygienic surroundings of the patient were made the best possible that circumstances would allow.

Kephir, and its Use as an Infant Food.—In the *Archives of Pediatrics* for May, 1888, Dr. Taylor gives his experience of the use of the above food in the Home for Foundlings, Cincinnati. The writer of the paper is of opinion that when predigested foods are introduced into the alimentary canal of infants, there is a risk in some cases of introducing ptomaines along with them, which the child cannot eliminate. In Kephir, Dr. Taylor thinks we have a natural predigested food in which the albumen changes rapidly into peptones and the sugar into lactic acid, alcohol, &c. In Kephir, also, the curd is reduced to a very fine state of sub-division. The food was principally used in the case of children suffering from atrophy, and due to chronic dyspepsia, with the most gratifying results. The food is continued till the patient shows signs of "filling up," when it should be replaced by ordinary milk and barley water, or one of the farinaceous foods which will then be found to be well digested.

Dr. Taylor advises the Kephir to be given at a temperature of about 75° F., but iced if vomiting is present, and advises it should not be more than a week old. He sums up his paper with the following directions:—

1. If the infant is less than a month old give it diluted with one-third of water. This proportion may be gradually lessened till at from four to six weeks of age it is given undiluted.

2. It should be fed slowly from a simple, easily cleansed feeding bottle.

3. When used it should constitute the only food, except in children over a year old, when toast, biscuits, &c., may be given with it, and one meal a day may with advantage consist of oatmeal porridge or other farinaceous food.

4. For young infants it is best adapted when given in its "young" or less fermented state.

Its greatest usefulness is in cases of infantile atrophy and of chronic diarrhoea.

Incontinence of Urine in Children. (*Archives of Pediatrics*, December, 1887.)—The following are the causes enumerated by Dr. Charles W. Townsend, of Boston:—I. *Reflex*. 1. Increased quantity of urine; (a) diabetes mellitus. 2. Irritant quality of urine; (a) increased acidity; (b) uric acid crystals; (c) oxalate of lime; (d) phosphates. 3. Vesical calculus. 4. Hypersensitive state of external genitals; (a) stricture of urethra; (b) phimosis; (c) balanitis or vulvitis. 5. Anal irritation from—(a) worms; (b) eczema; (c) fissure. 6. Psychical. 7. Increased Irritability of bladder. II. *Atomy of sphincter vesicæ*. 1. General debility. 2. Spinal disease. 3. Acute febrile disease. III. *Malformation of bladder or urethra*.

Antiseptic Treatment in Enteric Fever.—Intestinal antiseptics in typhoid fever seems to be in a good way of becoming of the highest importance, says the Paris correspondent of the *Philadelphia Medical Times* (16th July, 1888). In the treatment of such patients Professor Bonchard first introduced naphthol, and Dr. Legroux is at present applying it in his service at the children's hospital with great success. As soon as a child is brought in suffering with symptoms of typhoid, the intestines are at once cleared out with calomel, given in doses of .3 to .6 cgr., depending on the child's age. The next day the intestinal antiseptic treatment is commenced as follows:—

R.—Naphthol beta, ... } 2.5 grammes.
Bismuth salicylate, ... }

M.—Divide into ten powders, and give one every hour in a wafer, or mixed with a little milk or brandy.

If the diarrhoea is not important, the bismuth may be left out and only the naphthol given, and if, on the contrary, there is constipation, then the following is used:—

R.—Naphthol beta, ... 2.5 grammes.
Magnesia salicylate, ... 2.5 to 5 „

M.—Divide, and use as above, till bowels are free, and then continue with naphthol alone.

It will be found that there will be diminution or entire suppression of intestinal meteorism, and that the stools are disinfected, no longer giving the fetid smell of typhoid, and also the mouth and tongue will clear up, the general state will improve, the disease will proceed quietly, and the convalescence will be shortened under this treatment. Naphthalin was tried, but it was found so disagreeable to the patient that it had to be stopped. It also presents some danger of absorption.—(*Boston Medical and Surgical Journal*, 16th August, 1888.)—D. M'P.

Cascara Sagrada in Rheumatism. Dr. H. T. Goodwin, U.S.A. (*New York Medical Journal*, 9th June, 1888), discovered accidentally that severe rheumatic pains from which he himself suffered were very quickly relieved while he was using cascara as a laxative. He immediately began to test this action of the drug in hospital, and found the effect constant. He says—"I have since used the cascara in fully thirty cases, some ten of which were in out-patients, and, with the exception of three or four in which there was a syphilitic taint, I have obtained the most satisfactory results. I commenced with 1 cc., t.i.d., and have never had to increase it beyond 1.5 cc., and even to this extent in but two cases. I have seldom had to wait beyond twenty-four hours for beneficial effects. In two cases I had to stop it temporarily, owing to its opening the bowels too freely. In such cases I would suggest that one of the preparations of iron be given (separately) at the same time. I usually combine it with syrup or glycerine in equal parts, and instruct the patient to take from thirty to forty drops in water. In one case, in which neither it nor the salicylate of sodium appeared to give much benefit, I combined the two with good effect."—(*Boston Medical and Surgical Journal*, 5th July, 1888.)—D. M'P.

GYNÆCOLOGY AND OBSTETRICS.

By E. H. LAWRENCE OLIPHANT, M.D.

On Plugging the Uterine Cavity for Atonic Post-Partum Hæmorrhage.—Dr. S. Chazan, in the *Centralblatt für Gynækologie*, for September, 1888, gives details of three cases of post-partum hæmorrhage treated by plugging the uterine cavity after Dührssen's method, recently described in these abstracts. In the first case the hæmorrhage remained unchecked by abdominal manipulation of the uterus, and even by combined intrauterine and abdominal massage. Dr. Chazan accordingly plugged with clean lint which had not been disinfected, and the hæmorrhage ceased immediately. The plug was removed five hours later and the uterine cavity syringed with a 2 per cent carbolic lotion. The progress of the case was good. The two other cases were somewhat similar, but the uterine cavity was plugged with cotton soaked in an antiseptic fluid. The author considers, however, that it is sufficient to have clean materials if antiseptics such as iodoform or carbolic acid are not at hand.

Dr. La Torre, in the *Nouvelles Archives d'Obstétrique et de Gynécologie*, quotes Bordé, who in two cases of urgent hæmorrhage adopted what seems the somewhat risky procedure of inserting into the uterine cavity a plug, of the size of the fist, soaked in a solution of perchloride of iron. The results were good, and he prefers this method to the injection of the perchloride. [We have seen Dr. S. Sloan of this city apply the perchloride on a swab in preference to injecting in a case of severe hæmorrhage.] Dr. La Torre, in criticising Bordé's method, says that in his country practice, where hot water and other remedies were not available, he has four or five times arrested what would otherwise have been fatal hæmorrhage by compression of the abdominal aorta. Auvard got good results from plugging the uterine cavity with a strip of iodoform gauze, about 5 yards long, in a case of hæmorrhage, six days post-partum.—*Gaz. Hebdom., L'Abeille Med.*, 1887, quoted in *Centralblatt für Gynæk.*, August, 1888.

Antipyrin in Labour.—In the *Archives de Tocologie* for November, 1888, Dr. Auvard and M. Lefebure devote an article to the consideration of this drug in labour. They quote papers by Laget of Marseilles, December, 1887, who found the pain of the contractions relieved by antipyrin given in 60 grain doses. M. Queiret of the same town (*Semaine Médicale*, March, 1888), got good results, especially in the first stage, by hypodermic injections of 4 grains of antipyrin, repeated in two hours if necessary. It acted well in 15 cases out of 20. Dr. Sielaki, of the Lemberg Hospital (*Wiadomosci Lekarskie*, No. 10, 1888), gave the drug in 15 grain doses with good results. The pain of the contractions disappeared, and the patients felt only the pain of the passage of the head, and that in a diminished degree. The effect was evident about twenty minutes after the exhibition of the drug. M. Fauchon, of Orléans (*Bull. Gén. de Thérap.*, September, 1888), got good results. M. Imbert de la Touche (*loc. cit.*, July, 1888), gave the drug hypodermically, in combination with cocain, and was well satisfied with it. The authors accordingly commenced their observations, much prejudiced in favour of the drug, and were somewhat surprised as well as disappointed to find it fail completely in 7 cases out of 10; in one case there was well marked relief from pain, and in two only slight relief. They administer the drug hypodermically in doses of about 5 grains, along with $\frac{1}{4}$ grain of cocain. Their conclusions are that—1st. With very impressionable patients a greater or less degree of relief to pain may be obtained, but that this is rather due to the "influence morale et suggestive" of the injection than to the action of the drug itself; 2nd. That in the majority of cases the effect of antipyrin is nil; 3rd. That without denying the good results that may occasionally be obtained, antipyrin cannot be classed with chloral and chloroform as obstetric analgesics. Besides the observers

quoted by the authors, we have the evidence of Dr. Rivière (*Gaz. des Sc. Med. de Bordeaux*, August, 1888, quoted in *Nour. Archiv. d'Obst. et de Gynec.*), in favour of the drug. His opinion is based on a careful observation of 28 cases in which antipyrin was employed, 30 grains being given in two doses by mouth or rectum. The pains were relieved in 20 cases and alleviated in the rest. The contractions were not affected, and the puerperium seemed unaffected. It may be remarked that in Dr. Auvard's series the drug was exhibited in small doses only. In any case it would seem advisable to make some further observations before condemning as useless a drug which seems in other hands to have proved a valuable addition to our therapeutic resources.

Antipyrin in Gynæcology.—Windelschmid (*Alleg. Med. Centralbl. Zeit.*, quoted in *New York Med. Jour.*, November, 1888) prescribes enemas of antipyrin before or during menstruation in cases of dysmenorrhœa. He gives 30 grains repeated at intervals of 12 and then 24 hours. In two obstinate cases, he has seen marked benefit, but warns against the depressing effect of the drug. Choupe (*Bull. Méd.*, 1884, quoted in *Centralbl. für Gynec.*, September, 1888) gave antipyrin in 30 grain doses by enema to relieve the cramping pains produced by ergotin in a case of bleeding myoma. The antipyrin did not hinder the uterine contractions, and prevented the pain when administered before the ergotin.

The Souffle heard over the Placenta in Extra-Uterine Foetation.—Dr. Trachet, in the November number of the *Arch. de Tocologie*, discusses the importance of this souffle which he maintains is not infrequently heard over the placental site, and to which little attention has hitherto been directed. Among his conclusions are the following:—that the souffle is heard when the placenta is attached at a part of the sac which is accessible to the stethoscope, but only while the foetus is alive or only recently dead. It resembles the ordinary uterine souffle in character, but is of a greater intensity, and its area is more fixed. The souffle disappears on the death of the foetus. It thus may be an index of the placental site and of the life of the child, both of these facts being important factors in determining the method and time of operation. The author grounds his statement on several cases described by Kœberlé and others. It may perhaps be doubted if his conclusions can be accepted absolutely, as we know that the placenta may continue to grow after the death of the foetus.

The Capiat.—Under this name Dr. Poynor, of Texas, *New York Med. Jour.*, 24th November, 1888, figures and describes a curette designed for removing such products of conception as may be left in *utero*. Its shape when expanded for use closely resembles that of the instrument shown by Dr. Robert Bell, of Glasgow, at the April meeting of the British Gynæcological Society. It consists of a flask-shaped cage formed by wires running longitudinally from a handle, and united at their distal extremities by a button. In Dr. Poynor's instrument the button joint, at the spot where the loops cross each other, allows of these loops being put into the same plane, so as to form one flat loop for introduction through the cervix. The loops can then be opened out by rotating one inside the other by means of a rod running through the hollow handle, much as in the movement of an American egg-beater. He claims that the instrument is easy of application, safe and thorough. On seeing the figure of this instrument, it appeared as if the button at the end must prevent the thorough scraping of the fundus, and we understand that Dr. Bell did experience this difficulty with his first model, and now makes his instrument without any such button. Dr. Bell's instrument is not so round as seen in profile, but is rather shaped like a round ended soda water bottle.

Varicocele in the Female.—In a clinical lecture on this subject, Dr. Palmer Dudley (*New York Med. Jour.*, August, 1888) gives a systematic

account of this condition which he thinks has not yet attracted sufficient attention among gynecologists. He considers the disease to be far from uncommon, and that in many respects varicocele in the broad ligament closely resembles the varicocele of the male. He thinks that this condition is frequently overlooked or ascribed to pelvic cellulitis. It is produced by long continued congestion; arrest of uterine involution, from whatever cause, and chronic constipation being the most important factors in its production. It will produce changes in the structure and function of the ovary similar to those produced in the testicle, causing atrophy of the stroma, and interference with the proper development of the ova to such an extent as to produce cystic degeneration of it and consequent sterility. When the varicocele has existed for some time or for a sufficient length of time to have caused a permanent dilatation of the veins, local treatment by counter irritation (with Churchill's tincture of iodine), cotton tamponing, pessary support, or local depletion will be of no permanent benefit. The result of a radical operation for its removal in the four cases reported, although not sufficient to make the operation a justifiable one in all cases, is strong evidence in its favour, even though the woman has passed the menopause. "Its symptoms are pain of peculiar, dull, aching character, extending up the side to the region of the kidney (and when the patient is in the erect position for some time), having its greatest intensity about that organ. This pain will disappear after the patient has occupied the prone position for some time. The pain is quite similar to that experienced by the male who suffers from varicocele, while several of the general symptoms are analogous in character, such as lassitude, a vague sense of unrest and mental depression. These symptoms are accompanied by a history of injury at childbirth, followed by inflammatory conditions which have arrested the proper involution of the pelvic organs. Chief among the physical signs elicited by digital examination will be a thickened ligament, flexible but tender under pressure, and transmitting a doughy sensation to the touch. Examined, with the patient in the erect position, the ligament is thicker than appears by examination in the prone position, but positive evidence of the varicose condition of the vessels of the ligament can be obtained only by careful digital examination per rectum, after the patient has been allowed to stand for a short time. Bimanual pressure of the ligament will then readily reveal the knotted, angle-worm appearance of the vessels." [The description of the signs and symptoms as given above is quoted verbatim. It will be evident that the diagnosis is by no means easy, more especially if it is to be finally determined by a bimanual examination of a patient standing upright.] The author goes on to give full details of four cases treated by removal of the appendages. In one of these the patient had been bedridden for eleven years; nearly a year after operation, she was able to rise at 7 a.m., "never thinks of lying down during the day, and goes to bed at 10 p.m. to sleep well at night." The other cases also resulted in cure.

Books, Pamphlets, &c., Received.

- Lectures on Ectopic Pregnancy and Pelvic Hæmatocele. By Lawson Tait, F.R.C.S. Birmingham. 1888.
- Procès criminel de la dernière sorcière. Par le Dr. Ladame. Paris. 1888.
- The Pathology and Treatment of Displacements of the Uterus. By Dr. B. S. Schultze. Translated by J. J. Macan, M.A., M.R.C.S., and A. V. Macan, M.B. With 120 illustrations. London: H. K. Lewis. 1888.
- Note Book for the Examination of Eye Diseases. Glasgow: A. Stenhouse. 1888.

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ORIGINAL ARTICLES.

CASE OF "FUNGUS HÆMATODES."*

By GEORGE BUCHANAN, M.A.,
Professor of Clinical Surgery, Glasgow University.

THE name "Fungus Hæmatodes" indicates a morbid condition of a kind so characteristic, that I should be sorry, if the term should disappear from the systems and manuals of surgery. I can find no trace of it in the index or table of contents of the new edition of *Erichsen's Surgery*. Its clinical characters distinguish it from most other tumours; and although histologically the primary stage of its growth may belong to one of several groups, yet its final condition is sufficiently recognisable to deserve a name to itself. It is usually associated with encephaloid cancer, though sometimes with soft large-celled sarcoma, and I have known it as the sequel or recurrence of a well marked fibroid scirrhus. Indeed, when tumours return after more than one excision, it is often noticed that each succeeding recurrence becomes more malignant in its clinical characters, till in the end it assumes the condition so graphically described by this name—a soft, pulpy sprouting, highly vascular mass, prone to ulcerate, and ready to bleed on the slightest abrasion.

I recently had a case, which was so typical in its appearance that I shall describe it in a few sentences.

* From the Proceedings of the Pathological and Clinical Society.

M. M., aged 60, was admitted to the Western Infirmary on 7th December, 1888. About two years ago he noticed a small lump on the posterior aspect of his left arm, about the middle. It was firm to the feel but movable, and was free from pain and without discoloration. For a long time it gave him no trouble, but about four months ago it began to enlarge rapidly, and to become reddish in colour, or rather purple. Within the last few days it has bled whenever it was touched, and on the day of admission, while he was in the model lodging-house, profuse hæmorrhage took place, which had to be temporarily arrested by a tight compress applied round the arm and tumour.

On admission the bandage was removed, and the bleeding, which was coming from an ulcerated spot the size of a shilling on a prominent part of the tumour, was easily arrested with a bit of dry boracic lint pressed on the spot by the point of the finger. The lint and clotted blood formed a scab, which temporarily closed the softened spot.

The present condition of the parts is as follows :—

The tumour is situated on the ulnar side of the arm, and extends along it from 3 inches from the tip of the olecranon to $3\frac{1}{2}$ inches from the styloid process. It projects about 3 inches from the surface of the arm. It is nodular, the nodules resembling knuckles of a purple colour projecting outwards, and of a very soft pulpy feel. The whole tumour can be moved a little in its situation, but it seems to grasp the ulna as if it sprouted from the periosteum. Large superficial veins ramify on its surface.

As I had no doubt of its malignancy, whatever its intimate structure might be, I amputated through the elbow joint, choosing a large posterior flat to bring the cicatrix in front of the condyles.

17th January.—The wound is quite healed, and the stump very satisfactory.

On examination, it was found that the tumour did not grow from the periosteum, but surrounded and embraced the shaft of the ulna, so as to adhere firmly to it.

Mr. Maylard made a microscopic examination of its internal structure, and found it to be a large spindle-celled sarcoma.

A CASE OF ATROPHY OF THE RIGHT HEMISPHERE
IN AN EPILEPTIC.*

By DONALD FRASER, M.D.,

Medical Officer, Paisley Burgh Asylum; Physician, Paisley Infirmary.

J. M'L., æt. 17, was admitted to the Paisley Burgh Asylum, from the City Poor House, Glasgow, on the 10th June, 1884, while suffering from a succession of severe epileptic fits, which continued for some days after admission. He appeared to be only half conscious. His tongue was red and dry, and his teeth were covered with sordes. His general condition and appearance resembled that of a patient in an advanced stage of typhus. He gradually improved, and took no fits for several months. He was a well made, stout, muscular looking young fellow, and worked regularly in the grounds or farm of the asylum.

Mentally, he was emotional, and occasionally irritable, very ready to find fault unreasonably with his fellow-patients. He was very fond of reading, or having read to him, some of the weekly religious papers. Though he might be described as weak-minded or childish, he could yet talk fairly well on the ordinary subjects of his daily life or experience. He could write, though he generally preferred to get his letters written for him. The history we obtained from a brother who visited him was that he began to take fits when about 15, and would take them very severely at intervals of several weeks. Before being admitted to the City poorhouse, he had been an inmate of a home for neglected or destitute children. We could not obtain any reliable information of his early history either from the authorities of this Home or such of his relations as we had access to. To illustrate the character and number of his fits, I give a few extracts from the report of his case in the Asylum case books:—

"*31st October, 1885.*—Patient has been free from fits for some time back, but last night he had a great number. He was continuously in a state of unconsciousness, going into another fit before he was free from the previous one.

"*1st November.*—Patient had nine or ten fits yesterday, and up till the evening had had over thirty fits from the commencement."

The record goes on in this way for several days, indicating the number of fits so far as they could be observed, with the

* Shown at a meeting of the Glasgow Pathological and Clinical Society, held 19th January, 1888.

general condition of the patient, the state as to temperature, and the rate of the pulse. As is so often the case in the status epilepticus, his temperature was often high, occasionally 105° . At his worst, he was unable to swallow, unconscious, and required rectal feeding to keep him in life. From this state he would gradually emerge into his ordinary condition, as described above.

On 5th November, at the conclusion of this particular attack, it was noted that "*at no time from the beginning of this illness have any paralytic symptoms been noticed.*"

This note is of importance in view of the condition of the brain as ascertained by *post-mortem* examination. While he was taking fits, and often severe ones, at irregular intervals during his stay in the asylum, only two or three attacks of the status epilepticus are recorded.

On 20th February, 1886, it is noted: "During the last two days patient has had fits frequently, perhaps a dozen or so. Last night he had a severe pain in right thigh, presumably an aura. It seemed to be relieved by gripping it hard. He felt at the same time very queer and cried a good deal; he had not, however, a convulsive seizure." I may here remark that he had been occasionally observed to slap his right thigh vigorously with his hand before going into a fit, but no direct evidence of an aura was at any time obtained.

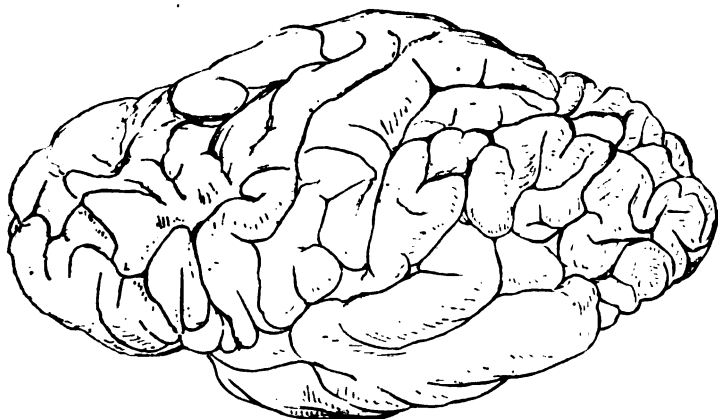
9th May, 1886.—Since last note (20th February) he has kept fairly free from fits. About four weeks ago he had a few fits, but the attack passed away without becoming serious.

This condition continued till early in November, 1888, when he took a series of severe fits, the status epilepticus, which was preceded by a melancholic and emotional condition marked by the utterance of religious sentiments. He gradually passed into a condition of coma, and died on 10th November after about forty-six hours' illness. He took bromide of potassium regularly during the four years of his life in the asylum. Chloral was used during the attacks of the status epilepticus both by the mouth and rectum.

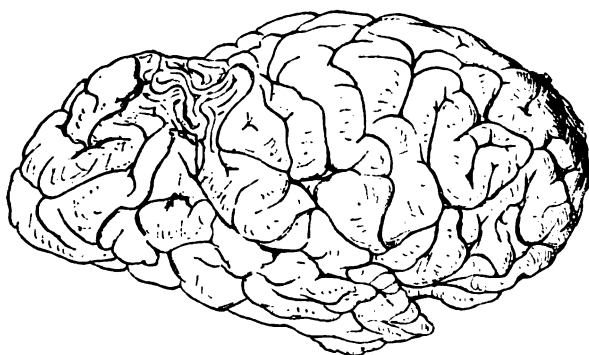
A *post-mortem* examination was allowed of only the head. On removal of the calvarium, which was rather thicker than normal, but quite symmetrical, the membranes presented nothing worthy of note beyond an intense hyperæmia of the vessels.

The right half of the cerebrum was observed to be considerably smaller than the left. It weighed 12 ounces, while the left weighed 21. From the tip of the occipital lobe to the frontal lobe it measured an inch and a half less than the left.

The superior parietal lobule was markedly atrophied, the convolutions being depressed, very small, and presenting the appearance of gelatinous degeneration. The atrophied appearance is well shown in the drawing, which was very carefully made. This atrophy did not extend towards the median



LEFT HEMISPHERE, weighing 21 ounces.



RIGHT HEMISPHERE, weighing 12 ounces.

aspect of the brain. It was sharply divided off from the ascending parietal and the supra-marginal convolutions, but was continuous with the upper part of the superior temporo-sphenoidal convolution, and involved the angular gyrus, and to a slight extent the second temporo-sphenoidal convolution, though this is not well shown in the drawing.

There was also a degenerated and atrophied patch in the upper part and towards the centre of the third frontal convolution, though not so marked as in the parts above described. The parietal, and to a lesser degree the temporal, lobes were those markedly and chiefly affected.

The motor centres, as a whole, though smaller than those of the left side, stood out in considerable relief from the atrophied parts, as is fairly well shown in the drawing.

There was in addition an obvious atrophy of the whole right brain, including the central ganglia, which were smaller than those of the left. There was no cavity nor indication of one, and the ventricles were not enlarged. The tissue was firm to the touch, and gave the same impression on section with the knife, there being a condition apparently of general sclerosis of the right cerebrum.

With the view of preserving the brain no dissection was made. A few incisions carefully made showed the puncta cruenta unusually prominent and numerous in both hemispheres. The cerebellum appeared normal.

The special interest of this case consists in the fact that during life there was no clinical evidence whatever of the existence of the condition of the right cerebrum above described. During the four years he was under my observation his condition and symptoms were specially noticed, and the absence of even post-epileptic paralysis commented on. Certainly no special tests were made of the motor or sensory condition of the two sides of his body, but this was because there were not the slightest indications to lead us to make such tests. He wheeled barrows, used his limbs in all sorts of ways without any hitch or difficulty. It would appear from the absence of motor paralysis in this case that the motor region cannot extend into the superior parietal lobule as has been supposed.

In connection with the atrophy of the angular gyrus, there did not appear to be any evidence of any defect of the special senses, which is in accordance with the known facts as to the temporary effects of unilateral lesions of such centres.

It is unfortunate that the early history of this patient was so obscure. No reliable account of his childhood or boyhood could be obtained, and the statement of his brother that the fits did not begin until he was about 15, is scarcely likely to be correct, in view of the accepted pathology of such cases.

Those interested in the pathology of cases of porencephalia, to which this case belongs, will find a clear and satisfactory account of the theory of vascular obstruction as the probable

cause of such atrophies in Dr. Gower's *Diseases of the Nervous System*, vol. ii, p. 427. His suggestion that the lesion which ultimately leads to such atrophy, as I have described above, is thrombosis of a surface vein, appears to me to be correct.

TWO CASES OF BRAIN DISEASE.

By DR. GEORGE BUCHAN.

(*Read before the Glasgow Medico-Chirurgical Society, Surgical Section,
14th December, 1888.*)

I.—A CASE OF CEREBELLAR ABSCESS.

THE patient, J. B. J., a female, a mill-worker, aged 63, was admitted into the Town's Hospital on the 15th May, 1888.

She was a very healthy woman, and never had any very serious complaints, and was always at work till this illness began.

About a week after the New Year she began to complain of symptoms resembling a severe dose of cold, but only on one side of the head, the right—viz., running at the nose (right nostril), and the right eye watering, and at times an involuntary winking of the right eyelids. This continued for about a week, when a severe pain began in the right occipital region, which gradually extended all over the right side of the scalp and stopped at the right eye. The pain was not continuous, but came and went. A fortnight later she began to vomit occasionally a very bitter green stuff, which she thought was the bile, and at same time began to feel at times a giddiness in the head and was languid and tired about her legs; and to assist her when she was coming home from her work she would get between two of her fellow-workers, and, placing an arm in each, was thus steadied and helped very materially in the getting home. On account of the vomiting she went to the "free doctors" (mission doctors), who said it was the bile. They prescribed some medicine to her, which did her a great deal of good; however, the vomiting still continuing she went to another doctor (paid this one), who said it was "just the bile," and prescribed some medicine, which did her no good. She continued in this state for about a month or six weeks, still at work, but tired, languid, and feeble about the legs, swimming in the head, and always likely to fall; and in the house, if she was bending down for anything, she

would fall down altogether, and she got many a fall that way. She then had to take to her bed, and they got the mission doctors to attend her, who still treated her for biliousness, but with no improvement. She was restless in bed—one time at the head and another time at the foot of the bed; she also became very irritable in her temper, and her niece could not put up with her any longer. She applied to the Parochial Board, when she was visited by the district doctor, who said it was nervous debility, and ordered her removal to the hospital.

On examination she was found to be fat and well nourished, lungs and heart normal, abdominal organs normal, no albumen in urine, and quantity of urine normal. She complained of diarrhoea and slight vomiting; and on examination it was found that the stools were loose, but bowels were not frequently moved. The tongue was clean; there was no nausea; and the vomiting, even in the worst attacks, occurred quite mechanically. She took her food fairly well, but as a rule for some time after her admission she vomited always a little of the food. On looking at her face, there was a peculiar leer about the right eye, which put me in mind of the look of one trying to make fun of one. Pupils were regular and responsive to light, and there was no complaint about her eyesight; she could see as well as ever she did; her hearing also was quite good, and no history of ever having had suppurating ears. There was no paralysis anywhere; reflexes normal. In bed she lay principally on her right side with her legs drawn up, her head, drawn a little backwards and to the right, boring into the pillow. She could turn herself any way, draw up and put down her legs. On being assisted out of her bed and asked to walk along the floor, she could do so as long as she was holding on by the bed, but no farther. Then I on the one side and nurse on the other tried to help her along, but she was just like one miraculously drunk. She tried to steady herself but could not—her legs bent under, her feet slid away from her. Thus reeling backwards and forwards, she would have fallen backwards and to the right had she not been kept up. By a process of exclusion I came to the opinion that this was a case of cerebellar disease, as we have the characteristic symptoms of this lesion—viz., staggering gait, vomiting, giddiness, drawing back of the head, and to the right in this case, and severe occipital pain. The pain, however, was not at the seat of lesion, as some authorities give, but at the opposite side. She continued in this state quite happy and contented and taking her food well, when about three weeks

before death she began to complain of a numb feeling in her lip and arms, and her speech became thick, and there was a slight difficulty in swallowing. This continued for a week, when paralysis of the lip and arms set in, and she could no longer feed herself. There were no rigors or sweatings at any time. Four days after this the temperature rose a little (99.6°), and paralysis of the sphincters set in, and two days before death there was stupor and coma.

Post-mortem appearances.—Membranes of brain fairly healthy, with here and there evidences of old slight inflammatory adhesions between dura mater and arachnoid. The left lobe of the cerebellum had a soft, pulpy feel, and on turning upwards the base of the brain, there were found five or six openings on the posterior inferior lobule of the cerebellum, out of which a yellowish glairy fluid was oozing. It had just the appearance of a discharging carbuncle before the slough separates. On cutting two or three of the divisions and tearing up the part, a ruptured encapsuled cavity was displayed as large as a medium sized egg. This ruptured cavity explains the symptoms noted 36 hours before death.

II.—A CASE OF ENDO-HYDROCEPHALUS.

J. S., aged 32 years, complained fully three years ago of a sudden pain right at the back of his head. At that time he could not take his food, and for 18 months he vomited constantly. At a later period there was difficulty in walking, the man staggering and holding on by the wall and other objects. The vomiting afterwards ceased. Thirteen months ago he had to give up work, and during the last two months he has complained of difficulty in breathing and of feeling cold.

On admission into Town's Hospital on 6th December, 1888, patient complained of pain in the back of the head and giddiness.

Family History.—Mother and father dead at the age of 45 and 59 respectively. Cause unknown. Patient has had no full brothers or sisters. The history of his half brothers and sisters is unknown to him.

Previous Health.—With the exception of the ordinary diseases common to childhood and an attack of "inflammation of the lungs" fourteen years ago, patient enjoyed good health until the present illness.

Present Illness.—About two years ago patient commenced to vomit. This was most marked in the morning, and occurred every other morning for about six months. He was then

treated privately for "indigestion," but derived no benefit. Accompanying this were pains in the head and slight giddiness.

The pain, which was about the occipital region, and radiating round this, was constant and of a severe aching character, which disappeared on lying down or walking in the open air.

In about six months the vomiting left, but the pain in the head and the giddiness became more marked (eighteen months ago). In addition to this, about a year ago he noticed he had a difficulty in swallowing. He could swallow solids more easily than fluids.

In November of 1887 he was treated in the Royal Infirmary. Here he remained four weeks, but was dismissed *in statu quo*. He was next treated in the Western Infirmary in February of 1888, where he remained until the beginning of July, and he was dismissed from there with instructions to go back in a month or so, as it was thought something more could be done. Instead of doing so he went to the Royal Infirmary, Edinburgh, where he remained for three weeks, but was dismissed again with the same result as from the other hospitals. About three months ago he was again admitted to the Glasgow Royal Infirmary, where he remained for nine weeks under treatment, and was again dismissed as nothing could be done for him.

Present condition.—He complains of pain in the head more severe than ever. The difficulty in swallowing and the giddiness are also greater than they were. His appetite is good. He has no sickness, and he is fairly well nourished.

Physical examination.—On examination, his lungs, heart, and other organs are normal. On walking, he has a staggering gait, and walks as if he were drunk. He cannot stand with his feet together, even with his eyes open. There is no paralysis of the legs, his inability to use them is from a want of co-ordination. There is no paralysis of sensation; only a feeling of numbness in the soles of his feet. He can tell the difference of heat and cold. The limbs are of normal temperature and size. The patellar reflex is exaggerated in the right leg more especially, and in the same leg ankle-clonus can be elicited. The other reflexes are normal. His sense of smell is normal. There is no paralysis of the eyeball. He says that he had double vision some months ago, but that has now left him. He cannot use his eyes for reading any length of time as his field becomes hazy, words and lines run into each other. His sight is fairly good for a little while. Sensation in the face is less on the right than on the left, and patient cannot whistle; the left side is drawn up, while the right is quite flaccid. The hard palate is perfectly sensitive,

but the uvula and anterior pillars can be tickled without any reflex act; they are quite paralysed. The occipito-frontalis and the pharynx are quite sensitive, and in no way paralysed. The mouth is not deviated. The tongue, when protruded, tends to the right side. The hearing is very good on both sides. Sense of taste—the right side of the tongue seemed to be unable to recognise sweets; otherwise it was all right.

Post-mortem appearances.—The membranes of the brain were very much congested, there being several foci of inflammation both along the longitudinal fissure and on different parts of the surface of the membranes. On gently taking out the brain, there was found in the posterior and middle fossæ a large quantity of thread-like masses of organised lymph, passing from the membranes to the surface of the dura mater. On examining the base of the brain, the floor of the third ventricle was seen to be very much distended, but no tumour was seen anywhere. On making a horizontal section of the cerebrum down to the ventricles, the thin layer of brain substance which was left before the ventricles were opened was noted to be distinctly bulging upwards, and on opening the ventricular cavities there was measured $6\frac{1}{2}$ ounces of clear limpid fluid. The cavities were very much distended, the velum interpositum and the other structures being beautifully displayed on account of this distention. They were also congested. On making section of the corpus striatum, cerebellum, and other parts, there was no evidence of a tumour. The weight of all the brain without the fluid was 46 ounces, the weight of the cerebellum and the bulb was less than 3 ounces, being thus a half less in weight than normal. This was probably due to pressure.

CASE OF DISLOCATION OF THE WRIST.

By JOSEPH CARROLL, M.B., C.M.

J. M., æt. 29, fireman, was admitted to the Ilkeston Cottage Hospital, on 22nd December, 1888, suffering from injuries received through falling from the top of a boiler to the ground, a distance of 15 feet.

On examining him, I found, besides several cuts and bruises and a very severe sprain of the left wrist, what at first sight appeared to be a Colles' fracture of the right forearm, but which on closer inspection showed a deformity of a totally different nature. *The whole hand and carpus seemed as*

though shot towards the radius; the skin over the styloid process of the ulna was very tense, shining, and white, while the surrounding parts were red and swollen. The deformity was best seen from the extensor surface of the forearm, whereas in Colles' fracture it is best seen when the arm is looked at from the side. Under chloroform, the dislocation was easily reduced, the head and carpus slipping towards the ulnar side and the deformity disappearing. On removing the extension, there was no tendency to reappearance of the deformity, as in fracture. He complained of numbness, tingling, and coldness in the hand. The parts were fixed upon a splint to secure absolute rest.

THE BREAKDOWN OF THE HOSPITAL SYSTEM, BEING AN ADJOURNED DISCUSSION IN THE MEDICO- CHIRURGICAL SOCIETY.*

DR. J. WALLACE ANDERSON *in the Chair.*

ARE HOSPITALS A FAILURE?

By W. J. FLEMING, M.D.

IN maintaining that the hospital system has not broken down, I think I will be supported by all intimately acquainted with hospital work. No one can surely believe that a system which does so much good as we daily and hourly see it do has broken down; but that the time has come when it requires readjustment to its surroundings is to most of us clear. I, however, join issue with Dr. Sutherland as to the direction this readjustment should take. He advocates increase of hospital beds. I advocate reduction of hospital patients. Therefore, to my mind all his statistics and deductions, while exciting our admiration for his research and labour, and our great interest in themselves, are beside the mark. As I say, his paper is essentially an advocacy of the extension of our present hospital system; my contention is, that a large measure of radical administrative reform is more likely to result in good. I therefore propose to indicate some of the directions

* The discussion was introduced by Dr. Francis Sutherland on 5th October, 1888, and the discussion adjourned till 11th January, 1889, that his paper might appear in the pages of this *Journal*. The paper will be found in our November and December issues, pages 345 and 438.

in which such reform should, in my opinion, operate, and some of the reasons for its necessity. To do this, we must first try to ascertain what are the proper functions of an hospital in the modern sense of the word, and how far the existing institutions perform these functions. The fundamental idea of an hospital is an institution for the treatment of the sick poor, but the meaning attached to these two words by different people varies within the widest limits. I consider that in an hospital supported by voluntary contributions it should exclude all persons properly paupers, *i. e.*, who should be treated at the expense of the ratepayers. It goes without saying that it should exclude all who can afford to pay for medical attendance. Now, between these two there are a large number of persons the proper recipients of charitable medical relief, and who alone should receive it. These, however, also fall naturally into two classes—and this is a point which does not seem to have been sufficiently insisted upon—1st, a class who require gratuitous treatment for every form and severity of disease; and, 2nd, a class who only require it for severe and exceptional conditions. To make my meaning clearer, let us take two simple examples—1st, the hard-working unskilled labourer, with a maximum of £1 a week, and a wife and children—only able just to live and support his family—who gets a sprained wrist, and for some weeks cannot earn. This man I should like to see getting every assistance. If our hospitals won't hold him, as they won't, he is a proper case for out-patient treatment; and one of the best forms charity could take would be to render some assistance to him. Take the other case—say his foreman, with £2 a week and a similar family and accident. If he is a provident man, he is probably in a friendly society, draws sick pay, and has some savings. Any charitable assistance to such a one, for a minor ailment, is not only wasteful but demoralising. If, however, instead of a sprain he gets a compound fracture, he then is a fit case for hospital treatment. He cannot be well treated at home. He will be disabled for many months. I therefore maintain, from no small hospital experience, that if a fraction of our hospital expenditure was devoted to a careful discrimination on the above lines of the patients admitted, or seeking admission, an enormous diminution of hospital patients without real hardship might be effected. It would cost time and trouble, which mean money, but it would be a good investment. For want of this investigation I admit our hospitals not only often fail, but do positive mischief. As long, however, as managers have to

trust to the sentimental feeling of subscribers, especially where the pernicious line system holds, I fear they will not venture on such a course. I have described the system of subscribers' lines as pernicious, and pernicious it is, simply because it converts what should be a pure charity—a sum given to assist our afflicted and poor fellow-creatures—into a gigantic system of insurance; in the case of the rich, against the trouble and expense of the treatment of those more or less dependent upon them; in the case of the working man, against disease or injury to himself or one of his family. Of course, in the case of the rich this is by no means universal, although I fear often unconsciously existent; but in the case of the working man it is almost universal. We are all familiar with the story—"I have paid into the Infirmary so many years, and you *must* take me in." What is this but a system of insurance against illness—not a charitable contribution? But the rich in another way—on which I will have more to say—unconsciously, but none the less really, make their contributions an insurance to provide themselves with the highest medical skill in time of need.

This brings me to the one other great purpose of hospitals—their educative function. Of the importance, nay the necessity, of this for the common weal, I need not speak to you, gentlemen. But there is a misconception on the part of the public in regard to it, to which we would do well to give more attention. There is an idea abroad confusing the mere clinical teaching with what, for want of a better word, I may call experiment. You all know, and no one so well as the many clinical teachers around me, that it is the ordinary diseases we most desire to teach our students, and that only by the mass of these collected there and the suitable surroundings of an hospital can we hope, in the short time at our disposal, to give this tuition. As to the rare forms of disease, it is we who really learn from them, and through us, by publication, the profession generally; and in regard to what is called experiment, how else can we proceed if we have an unusual case to deal with, but think out, on general principles, how we can cure it, and try the plan which seems most likely to effect this, even if it is a new plan? What is this but an experiment, but what better can we do either for our patient or humanity? Then as to the outcry which has recently been revived, in an almost indecent form, that students and young practitioners are allowed to "practise" upon hospital patients—every man must perform every action of his life on one occasion for the first time.

Whether is it better that this should be under careful supervision, and by a graduated progress from the simpler to the more complex operations, where possible, with previous practice on the dead subject, as is the way in hospitals, or that the young practitioner should find himself compelled, without advice or assistance, to perform upon a private patient an operation which he has no doubt seen, but has never previously himself attempted? And besides this, is it not fair that patients receiving gratuitously all the advantages of hospital treatment and the attendance of professional men, selected for their special ability, should in return be required to submit to the slight inconveniences entailed by clinical instruction on their cases—an inconvenience, moreover, which is more than counterbalanced by the advantage of the enforced special attention which their selection for teaching purposes ensures? For my own part, I must say I have never experienced any difficulty with patients in the matter. Indeed, the majority seem rather to like the attention to their case which clinical instruction upon it brings home to them that it is receiving. One difficulty, however, I do have—that of obtaining permission for *post-mortem* examination, and few things at present interfere so much with our progress. I cannot but feel that, although unexpressed, we have not in this matter the support of the non-medical managers to the same extent as, I am glad to say, we have it in other ways.

Another subject in connection with hospital management, which has recently and rightly assumed some prominence, is the question of length of residence of patients in hospital. This is one of great importance, and one which I am sure would well repay careful investigation by a committee or otherwise. It is too large a subject to be fully discussed now, but for my part I am convinced that a high average period is due not to the extreme length of residence of a few, but to the slight unnecessary detention of the many. The causes of this are various, and most of them at least are removable.

If reforms are required in the resident, much more are they needed in the out-patient department upon the same lines; but this is a subject which has received much attention from some of the gentlemen I see here to-night. I leave its discussion with confidence in their hands, being anxious in the short time remaining to me to say a word about special and proprietary hospitals. Not so many years ago, and I believe even yet in some benighted regions, free advice to the poor in the practitioner's consulting room at stated times was not altogether uncommon nor considered very undignified. I do not

say it was altogether good, but it was surely preferable to the modern system of proprietary hospitals. A man laying himself out for some special branch who has failed to obtain an appointment to that special department of a general hospital, and indeed some who have, persuades some of his personal friends, and through them some of the unthinking charitable, that there is need of an institution for the treatment of the particular class of maladies with which he is desirous of associating himself. He persuades them to organise an institution, or rather he organises an institution, and persuades them to support it simply to subserve his own ends, cloak them as he may under philanthropic guise. We all know that now full provision is made by means of special departments in the general hospitals for every class of disease, and that every penny spent upon these proprietary hospitals is misspent. Before special departments were instituted in the general hospitals there was some excuse for these institutions, but to-day there is none, and the charitable public would do well to refuse support to every institution which owes its inception to an individual member of the profession, and in the management of which he has a preponderating influence.

Many special hospitals and dispensaries, managed on the same principles as the general hospitals, are, however, legitimate enough. To them I would apply the principles I have above enunciated, but a very little investigation will suffice to distinguish them from the proprietary establishments, which I cannot too unhesitatingly condemn as a misdirection of charity and an indirect professional advertisement.

Dr. Sutherland's panaceas are centralisation and state aid. I have no objection to either of them in abstract principle, but I fear the difficulty of limiting the first and I doubt the possibility of obtaining the second, and if we did I am not so sure as Dr. Sutherland professes to be that it would not largely dry up our present sources of income. Altogether his scheme is too large. We are certainly not ripe for it.

The system now existing has been of slow growth and has deep roots. Those roots, I believe, are sound, but of the branches many require pruning, others training, and to effect this should be the immediate aim of hospital reformers. I have indicated some of the directions in which I desire to see reform. There are many others, and like Dr. Sutherland I want a commission to sit upon the subject, but not an Imperial one. It should be formed, for Glasgow at least, by representatives of the hospital boards, of the poor-law authorities, of the hospital staffs, and of the general practitioner, and I am

sure that such an investigation as would result from the inquiry would go a long way to settle the various difficulties which at present hamper our hospital administration.

Before concluding, there is one matter of detail in Dr. Sutherland's paper against which my now considerable hospital experience entitles me to protest. It is the frequently recurring assumption that patients are selected not for their fitness but from the more interesting nature of their disease. I wonder at a member of our profession, who is more or less intimately acquainted with the details of hospital work, allowing himself to be misled by this common and injurious fallacy. I assert boldly that the cases selected are invariably those who seem likely to be most rapidly and effectually benefited. No doubt, these happen generally to be the most interesting cases, but this is little more than a coincidence. And, again, I must dissent from the assumption that the admitting medical officer should in any way consider the circumstances of the patient. This should be done by the administration. What he has to consider is the probability of the patient being benefited by hospital treatment. I simply do not agree with Dr. Sutherland that consumption, or any other incurable disease, should be admitted to a general hospital, and I go so far as to say that cases such as old ulcers, which could be equally well treated with mere rest anywhere, are also unsuited for the wards of a hospital pressed for beds. I cannot see why a man who has the misfortune to be unfitted for work by an ulcer should not be treated at the cost of the ratepayer in the same way that he would be supported if afflicted with mental disease. A great and desirable reform in our poor laws is hinted at by Dr. Sutherland: a separation of those requiring the aid of the poor law in consequence of unavoidable disease or accident from those whom we have to support as a result of their own vice or idleness. This would go further to solve our problem than any of the rather risky experiments advocated by Dr. Sutherland.

BREAKDOWN OF THE PRESENT HOSPITAL SYSTEM— THE FREEDOM OF HOSPITALS CLAIMED.

By HUGH THOMSON, M.D.

It is now about twenty years since the late Sir James Simpson drew attention to the insalubrity of large hospitals compared with smaller ones. He showed by statistics which have not been successfully controverted, that in ampu-

tations of the limbs, the mortality was almost in the direct ratio of the size of the hospital, rising from 1 in 9 where the operations were performed in isolated rooms in country practice, to 1 in $2\frac{1}{2}$ in hospitals with from 300 to 600 beds.

The remarkable difference in results under such circumstances, after amputations, and in the treatment of other serious injuries attended by wounds, particularly compound fractures, was well known before, but it was left to Sir James Simpson, as regards amputations of the limbs, to reduce such knowledge to the statistical form. It was unquestionably to the aggregation of numerous cases of suppurating wounds under the same roof, and the consequent contamination of the air of the wards with septic matter that the "enormous" difference in mortality was to be traced. The death knell of large hospitals was being rung, when, fortunately, Sir Joseph, then Mr. Lister, promulgated his grand discovery of antiseptics, by which sepsis was nipped in the bud, noxious effluvia became non-existent, and the air of the large ward overflowing with bad cases rendered as sweet and wholesome as that of a private house, if not more so.

That was a threatened breakdown of the hospital system in a hygienic and therapeutic aspect; what we have to consider now is, has it broken down in a social and economic point of view?

Whether we agree with Dr. Sutherland or not in his scheme for increasing the efficiency of our hospitals, we must all thank him for the pains he has taken to bring this subject before us, and for the honest attempt to show wherein hospitals come short of their objects, and how these may be better accomplished.

Hospitals are institutions for the more efficient and economical treatment of disease amongst the poorer classes, and for preventing the spread of those diseases which are infectious by the separation of the diseased from the healthy. Both these objects were wont to be aimed at in the same hospital, but as it became apparent that as regards infectious disease, effectual separation could not thus be secured, it has now become the rule to have for these affections hospitals totally separate from the other. This separation became the more necessary in consequence of another distinction between these two sets of hospitals,—that for the treatment of diseases generally, is a purely charitable institution with philanthropic objects, whilst that for infectious diseases is not so, being in many if not all respects a selfish institution for the protection of the healthy—rich as well as poor. The infectious diseases'

hospitals have, therefore, very properly been relegated to the sanitary authorities, and are maintained by the rates, thus giving a great relief to the other class of hospitals.

But there is yet another class of hospitals, one which Dr. Sutherland has not given sufficient prominence to, probably from want of space, in estimating the existing hospital accommodation in the various towns and cities in the kingdom, that is the workhouse infirmaries, and without which it is impossible to draw just comparisons between these various towns and cities. These form, indeed, a very large proportion of the hospital accommodation, and being also entirely supported by the rates, are a further great relief to those supported by voluntary charity. For example, I find that the number of hospital beds in Birmingham is set down in Dr. Sutherland's Table II at 624, and nothing is said of the Birmingham Workhouse Infirmary with 1,700 beds and 1,400 patients. It is true the workhouse infirmaries are for the most part occupied by chronic and incurable cases, but they are not entirely so, and ought to be taken into account in estimating what is needed for the sick and infirm poor, if they are to be maintained by the rates.

The case of Dublin seems to be peculiar. There Dr. Sutherland gives the number of beds as 2,500, or 1 to every 140 of population, but this number evidently includes all the hospitals of whatever description, whether supported by rates or not. What hospital accommodation may become may be guessed from the case of Dublin, and yet there does not seem to be even there an hospital for consumptives, which I think so much wanted here, as it is elsewhere.

As regards the mode of maintaining the hospitals, I fear that if we once introduce the rating system, we will inevitably shut up all voluntary charity for such purposes. Surely it ought not to be difficult, if the necessity were clearly pointed out to a Christian community, merely in supplement of the large amount already done by the rates, to raise sufficient funds from voluntary sources for the relief of our sick brethren.

As to the mode of admission, I certainly think a change is needed. Delays, if dangerous anywhere, are so here. Whilst not doing away with subscribers' lines, I would make it sufficient, that the patient were recommended by a line from a qualified medical practitioner stating the nature of the case. Nothing more is required for admission to the infectious diseases' hospitals; I cannot see why more should be required for the general hospital. Whether there should be a central

bureau to which the applications should go before the patient be taken to the hospital is a matter of detail which might or might not be necessary.

Among the objects to be attained by hospitals, there is another to which I should like to draw attention. I think they might be more utilised for purposes of research than they are at present. Gentlemen who have shown a strong predilection and aptitude for that sort of work, I have no doubt could be found, who for a moderate but adequate salary would, preferring the pursuit of science to the pecuniary rewards of a large private practice, gladly accept of such appointments where they would have both the means and the necessary leisure to pursue their researches. That they should not be regarded as permanent appointments, which might be an encouragement to idleness after a time, they should not be held by any one after reaching the age of forty-five years. This would secure relays of young active men, besides affording openings for the rising generation, whilst utilising the older experienced ones as consultants.

It is too much the case to regard these appointments as merely honorary, for the salaries attached to them are not such that the gentlemen filling them could afford to give much time to them.

As regards hospitals where medical schools exist, something on the lines indicated by Billings in his plans for the Johns Hopkins' Hospital might be advantageously adopted: I cannot do better than quote his recommendations:—

“The objects of the Hospital, as indicated by its founder, are first, to properly care for the sick poor; second, to aid in the education of physicians and nurses. Such an institution may have a third object, namely, to promote discoveries in the science and art of medicine, and to make these known for the general good. In this country it is too much the case that scientific and medical men who are qualified and have the desire to make original investigations, and thus increase our stock of knowledge, want either the means or the time to do so, and it is to young and energetic men qualified and selected as I have above indicated, and working under the direction of such men as it is hoped the professors of the school will be, that we must look for the scientific observation and information so much needed to increase our power of healing or comforting the sick.”

Appointments such as these would be suitable rewards to diligent students, and would tend greatly to advance the medical school.

The subject of the paper is a very large one, and I might easily extend these remarks; but as there are many others desirous to address the meeting, I shall not encroach further upon your time.

ON THE SO-CALLED "BREAKDOWN OF THE HOSPITAL SYSTEM."

By DR. CAMPBELL BLACK.

AFTER carefully reading Dr. Sutherland's paper, it is not easy for me to see where the "breakdown" comes in, or what the exact nature of it is. The paper is an elaborate one, and must have cost its author a good deal of trouble, but in my humble opinion it is an eminently fallacious one, and ignores the fundamental principles of political economy. In the first place, from the political economy point of view, Dr. Sutherland entirely overlooks that the wage-earning classes of society have certain social and moral obligations imposed upon them, in common with their wealthier brethren of the community; and for the life of me, I cannot understand why a man, earning for himself and family from 25s. to 30s. a week, is more entitled to gratuitous medical attendance and medicine, than he is entitled to gratuitous shoes or butcher meat. Our profession is becoming notoriously overcrowded, and its younger and poorer members have to seek for a living in the humbler grades of society. Now, for the purpose of argument, the question raised by Dr. Sutherland has to be viewed from the following division of society. 1st, The pauper class for whom the State makes provision, and for whom we are all taxed; 2nd, The class earning say from 15s. to 25s. per week, and for whose medical treatment a voluntary tax might possibly and justifiably be levied on society; and 3rd, The class earning wages from 25s. to 30s. per week, and who are, in my opinion, entirely outwith the domain of eleemosynary aid. Leaving out the first and the last classes, the question arises, Is there not sufficient hospital accommodation in Glasgow for the second class? Two eminent authorities in Glasgow, Mr. William Macewen and Mr. Hugh Brown, tell us that we have sufficient hospitals in Glasgow, and the former in particular was openly hostile to the Victoria Hospital now building on the South Side of the city. Would Dr. Sutherland expiscate for us the number of people in Glasgow earning only from 15s. to 20s. per week, the percentage of illness among them, and compare this percentage with the number of people annually

treated in the hospitals of Glasgow? It is no argument to compare the number of people treated in Glasgow hospitals with the number of people treated in this manner in other large cities in the kingdom. Glasgow may be, and doubtless is, much wiser in this respect than the other cities in question. Of this I am persuaded, as the result of about ten years' experience at "the Royal," and otherwise, that there are far too many people treated in the Glasgow hospitals, and I do not doubt that in this manner the more deserving may be thus elbowed aside; and as the result of this I may point out from a long experience of Glasgow, as a school-boy, a student, and practitioner, that a certain class of practice—I mean the working class practice, in which practitioners have made respectable competencies on 1s. visits, and midwifery fees of 10s. 6d. has *almost entirely disappeared*. Those people are now treated at hospitals, and get much of their midwifery done through institutions. The injury to the profession in this manner, and the extent to which the people are pauperised and demoralised are admitted truths. Let the people earning from 25s. to 30s. per week, if they feel so inclined, provide for medical attendance and medicine by means of the club system, and many practitioners, I am sorry to say, are quite willing to take some *fourpence* per week, for supplying medical attendance and medicine through this system?

I therefore dispute Dr. Sutherland's proposition, No. 2, on page 29, "That in Glasgow and other centres the present accommodation (of hospitals) is far from adequate, and that this inadequacy leads to great hardships."

I am more in harmony with proposition 3, "That their financial position is unsatisfactory." Undoubtedly it is, and the cause of this is not far to seek. I don't know that the hospital system is more than from 150 to 200 years old altogether. Taking the large hospitals in London, for instance, and our own "Royal," these institutions were the *outcome of disinterested beneficence*, but matters have entirely changed since then, and the modern *hospital is to a large extent the business place of its staff*. You can no more make a good physician or surgeon without experience than you can make a good tradesman without the experience which begets knowledge and manual dexterity. Hence, so long as favoured medical men derive personal benefit from hospital positions, so long will hospitals continue to increase, and to that extent, and in this ratio, will "their financial positions be unsatisfactory." The fact is that a point has been arrived at in London (and it is fast approaching here), beyond which the public will

refuse to support hospitals, in addition to the parochial hospitals for which they are heavily taxed. Take the case of this city with which we are all familiar, and we find that there is not a *medical institution within its bounds* with the exception of "the Royal," which has not been called into existence by one or more medical men for the furtherance of their own ends, and so long as the monopoly of hospital appointments continues, so long as the tenure of office is so protracted, I say emphatically *why not?* The *Western Infirmary* is the creation of the University, and the University took good care to regulate its interests in it on the most astute *business principles*. It has even gone further in directions not necessary to particularise here. Will any person doubt that there are monopolies of medical appointments in our two largest medical institutions? Is the Victoria Hospital the result of an irrepressible passion for benefiting the poor? The Victoria Hospital is entirely justifiable from the professional point of view, but that it *was* required by the public, and that it will do harm to the financial position of the other hospitals are different questions. I do not believe the former; I fear the latter. As to Dr. Sutherland's Central Governing Board, I have elsewhere publicly expressed the opinion that it is Utopian. How can the vested interests in hospitals ever be got over? Does Dr. Sutherland for a moment think that the *Western Infirmary* authorities would delegate their vested interests to any Board under heaven? If he does, he takes them to be simpler business men than I have any reason for suspecting them to be. The same argument applies to other private hospitals in the city.

THE BREAKDOWN OF THE HOSPITAL SYSTEM— REMEDIES SUGGESTED.

By JAMES ERSKINE, M.A., M.B.

So much has been said on this subject already that it is impossible and futile to attempt anything more than to bring our information to a practical issue. The question now is, what can we do as medical practitioners to remedy the unsatisfactory system, or want of system, that obtains at our medical charities? I take it that what Dr. Sutherland means by the term "hospital system" is the present mode of hospital support on the voluntary principle, and the unrestricted and free manner of admitting patients.

Such a state of matters can scarcely be regarded as a

system except we use the term in a very loose sense. There is a want of the order and harmony indicated by the word. In all their relations to patients, the public and medical practitioners' hospitals as presently conducted cannot do the largest possible amount of good. The class of patients for whom they were designed does not find the easiest and freest access to them. Others who can obtain lines of admission to the hospital often step in before the neediest and most deserving patients. The waiting rooms of public dispensaries are open to the well-to-do and the poor alike. The public are being pauperised, and medical men are losing the fees of the working classes of the population which they can afford to pay. At the same time, less value is placed on the advice of general medical practitioners. Each charity exists independent of others. Symptoms of rivalry are too often apparent, instead of a desire to combine and act for the common good. The relation between the managers and the subscribers or the public is more theoretical than real. The management as a rule consists of a few wealthy and influential men, their position on the board of directors resulting as a necessary corollary from the fact of their wealth and influence. That the voluntary principle has supported such a state of affairs for such a time is matter for wonder and astonishment. In no country has the voluntary support of hospitals been so long and successfully maintained as in Britain. But this is no guarantee that success can continue always from such a principle combined with so many imperfections connected with the institutions supported by it. What constitutes hospitalism cannot be considered as a system so long as the interests of one class, the poor, are interfered with and minimised by another class who should not be partakers in the benefits of medical charities. Neither can it be a properly constructed system when medical men themselves are so unequally affected by it. The class of hospital doctors is set against the class of general practitioners very much to the disadvantage of the latter. Subscriptions are solicited on the ground that a return value will be given in the form of lines of admission for distribution, and donations from working men are asked for on similar grounds—namely, that admission will be thereby secured. Is not this a contradiction of the voluntary principle?

Instead of a system we have a chaos to deal with. This chaos contains the elements which would form a beautiful and useful structure. The system or no system that has prevailed requires to be brought under some control

and regulation. Things have just been allowed to hang as they grew. We have a very unwieldy mass to handle. It is becoming so vast that it will soon be a very difficult matter to comprehend it. The difficulties to be encountered in Glasgow are small compared to what they are in the metropolis. Moreover, it seems to me that the question of the hospitals is quite within the sphere of practical politics. We have heard the *non possumus* too long. The more we delay the matter, the more the difficulty will grow. We are pretty well convinced of the imperfections of the hospital system. We cannot say it has broken down, for it has not yet been perfectly formed. It lies with us to attempt to form a system. The want of uniformity, compactness, mutual co-operation, and mutual help is likely soon to interfere seriously with the efficiency of our infirmaries and dispensaries.

With all that Dr. Sutherland has demonstrated in his paper I substantially agree. The most of the points on which he has dwelt have already formed the subject of consideration and discussion by the most eminent men in this country, both in the profession and outside it. Foremost of all are Mr. Timothy Holmes, Sir Andrew Clark, Dr. Bristowe, and Mr. H. C. Burdett. The Marquis of Salisbury, Lord Derby, the Duke of Cambridge, Lord Randolph Churchill, and others, have given important and practical papers and addresses on the subject as affecting the metropolis. There is a distinct diminution in the amount of money obtained for the London hospitals, both from legacies and subscriptions. We are not confronted with such a sad state of affairs in Glasgow, therefore it ought to be much easier for us to cope with the difficulty.

At present there is no recognised law observed with reference to the formation of a new hospital. In some localities there are too many medical charities, in others there are too few. There is a decided want of them in country districts, particularly in mining districts. The practitioners in those parts are perfectly well qualified to treat cases of all kinds, since they are daily called upon to undertake all manner of medical and surgical work.

As a rule, a medical charity or a hospital has its origin in the desire of one or more practitioners to improve their practice or position. This is a laudable enough desire no doubt, and more than one hospital has had its rise from such a motive, particularly special hospitals. If there were some tribunal or central court of administration, this state of matters might be kept within limits. The small special

hospitals deprive the large hospitals of a large amount of money, especially from legacies. The benefactor being a layman is often unable to appreciate the difference between a small concern calling itself by the name of infirmary or hospital and a large medical charity.

Special hospitals should be supported by the medicals who receive most benefit from them. If the public were to refuse to support them they would exist all the same, for specialists could not exist without them. Nor can the profession, as a whole, do without the clinical material for teaching purposes that is to be found within the wards of our public hospitals. It has been said that if we had not the patients accessible for that purpose in infirmaries, we would have to pay patients to allow themselves to be utilised for teaching. This was not the original purpose of founders. It seems to me that we are not so wholly dependent on hospital patients as all that. Dr. Sutherland has indicated that hospitals in workhouses should be separated from the workhouse, and in this way an end would be put to the registration of a man as a pauper because he was sick. Ought not this arrangement to be consummated for another purpose—namely, to secure all such patients as additional clinical material. I understand that the St. Pancras and the Paddington guardians in London have made such arrangements, not only for the benefit of the profession, but for the benefit of the patients themselves. Could not some influence be brought to bear on the Board of Supervision in Scotland with this end in view?

The establishment of a central bureau for the proper administration of medical charity has been proposed by others before it was advocated by Dr. Sutherland. The sooner such a system is inaugurated the better. Already we have in the Charity Organisation Society a central board of this kind. I think it is a great pity that the resources of that very useful and powerful agency have not been much more largely taken advantage of by all interested in the administration of charity. It is very satisfactory to know that the Directors of the Sick Children's Hospital are availing themselves of the services of the Society with success. The Medical Charities Committee appointed two years ago will be glad to assist.

Could not a nucleus of a Board of Investigation and Direction of Medical Charities be formed out of the Charity Organisation Society, the Medical Charities Committee, and the Directors of Infirmaries. We have already put our hand to the plough, and we should be ashamed to turn back. We cannot expect a Royal Commission, nor can we expect a

prominent member of Parliament to take the matter up so long as we do nothing ourselves. This is a doctors' question more than a people's question. In Glasgow the question is not nearly so difficult to face as in most large cities in England. Let us keep our hospitals off the rates as long as possible, and take care to husband our funds. Legacies are a precarious means of charitable support. We ought to place very little confidence in the dead man's hand.

The great desiderata in the reform of our hospitals are—(1) organisation, (2) registration, (3) investigation, (4) discrimination. Dr. Sutherland holds that increase of hospital accommodation is necessary. I maintain that elaborate though his statistics are, they are not worth much on account of the slipshod way in which hospital accounts are given. Hence the necessity of uniformity in making up statistics. There is no absolute standard of the proportion of hospital beds to the population, and a large number of local and incidental circumstances must be taken into account.

It is a begging of the question to say that a certain or proximate proportion of beds in hospitals is required. That can only be ascertained after a uniform system of registration, along with investigation and discrimination, is adopted. I hold that there is sufficient hospital accommodation already. It only requires to be properly utilised. We certainly require subsidiary or auxiliary institutions, such as convalescent homes, but no more hospitals except in country districts.

I intended to say a word regarding the monopoly and plurality of appointments in hospitals. If these appointments were distributed more widely among practitioners, there would be less discontent and animosity among them towards hospitals. The number of hospital and dispensary appointments should be at least doubled.

Dr. Wolfe said he spoke at a disadvantage in discussing this question, because he had never seen Dr. Sutherland's paper, but he gathered the contents of the paper from the speeches he had heard. To say that the hospital system had broken down was a mistake, at least as regards Glasgow, a new hospital being about to be added to the city. In London, however, the system had broken down, as a good many of the hospitals had closed some wards because there was no support for them. The reason of this breakdown was that the public had come to see that the name charitable institution was a misnomer—because hospitals, though

originally intended as charitable institutions, had, in process of time, degenerated into co-operative societies. Men who earned good wages, and even some possessed of considerable means, found admission to them, simply by being able to get lines. This was due to the hospitals being in the hands of benevolent laymen, who were kind enough to take them under their wing, but did not look after the interests of the medical profession—who, in fact, considered that the profession could look after itself, and that the more patients the hospitals had the better. Traced farther back, it was due to jealousy in the profession itself. He would ask, therefore, what was the use of this discussion at all—where would it end? Medical men, because they could not agree, had no say in the matter whatever, though he would hope that some effect would be produced by what had been said to-night.

Mr. Parry said he had been house surgeon for two years in the Children's Hospital, and one year in the Royal Infirmary, and his experience was that there were very few cases which obtained admission into the hospital that could be regarded as patients able to pay. There were operations that could not be performed outside, and a great many of the cases were sent in by the doctors. At present it was quite common to hear of cases treated first, say in the Western Infirmary, then in the Convalescent Home, then in the Royal Infirmary, and again in the Convalescent Home. He regarded that as an indication of failure in our hospital system. To prevent such occurrences, and to control the admission of cases into the various hospitals, he would suggest the formation of a Central Board, with a delegate from each hospital. Such a board should also have charge of a large convalescent home, where cases could be kept for an indefinite time—for six months, if necessary. At present many cases could not be sent there, because there was nobody to look after them, and there were many cases in our hospitals, especially the Children's Hospital, which required fresh air and looking after more than medical or surgical treatment. They should be sent back to the hospital before dismissal. The Central Board should also have charge of the incurable cases, which should be drafted into incurable hospitals, and not sent home. Such a system would give a completeness to hospital treatment which it had not at present.

Mr. H. E. Clark said there were two points on which there was a general concurrence of opinion. One was that the convalescent homes did not seem to be fulfilling the purpose

for which they were intended. These homes did not take cases in which required treatment. The consequence was that many cases had to be kept in the hospital longer than need be. In connection with many tubercular joint affections, Eastpark Home, by keeping such cases for many years, had done a good deal. Many of these people became worthy members of society, and he could point to many of them that were making a good living now, and who, but for the existence of such an institution, would have died in their early youth. It seemed Utopian to suppose that such homes could be got in connection with general hospitals, but he hoped it was not so. The other point on which there seemed agreement regarded the evil effects of the *line* system. At the Eye Infirmary a great deal of the evil of it was seen. Patients who could pay fees compelled them to give free advice, because they had a line, while poor people from the Bridgegate did not get in because they had no line. How did this affect the general practitioner? Not in the slightest. They said they did not know anything about the eye, and therefore they sent their patients to the infirmary. But it affected the specialists. The line system, however, had a business aspect about it, and a layman could understand it. Dr. Sutherland's system seemed to him to be a system of converting hospitals into pauper establishments supported by the rates. Dr. Sutherland's tables were somewhat fallacious—*e.g.*, a large hospital like the Edinburgh one served a very large area of country, and though there was no hospital in Fife, or in Kinross, these were near enough for Edinburgh to be available, where the organisation would be better than in a small hospital. Though there were certain counties in Scotland which had no hospital, much stress should not be laid upon that, seeing that this was made up for by larger hospitals in other counties.

Dr. Cullen said that some hospitals in the North of England, in which lines had been abolished, were doing perfectly well without them.

Dr. J. Wallace Anderson asked if it was the fact that there were many cases who needed admission into a general hospital and could not get it? That question had been answered in the affirmative by some. He would not have imagined that in a general hospital, to which magistrates and other public men were subscribers, the really needful would have had any difficulty in getting lines. There were, however, many admitted to our hospitals who were not sufficiently ill, but they got a subscriber's line and were taken in for a longer or shorter time. He frankly admitted, from his own know-

ledge and practice, that they erred on the side of keeping in patients too long, but from the most charitable motives, so that they might return the earlier to work. As regards convalescent homes, he thought there was need for a few nurses. Consumptive cases, he argued with Dr. Thomson, might do harm if they were admitted freely into the wards.

Dr. J. F. Sutherland said—I cannot possibly at this late hour take up in detail all the points in my paper that have been touched upon, and to which in some cases exception has been taken. Before dealing with these, I beg to thank the President (Dr. J. W. Anderson) for his complimentary remarks. It has been disputed by some that I have not made good my title—by others that too much value is placed upon the statistics. If there is nothing more forthcoming than that stated to-night, I must claim to have not only selected a proper title, but also to hold that the statistics, if not absolutely conclusive in their character, are of the utmost value in throwing light upon this complex problem. Dr. Fleming in his eloquent address did not think that any extension was needed. Well, that to my mind is an assumption unsupported by any statistics whatever. He has adduced no positive evidence in support of such a contention. Those who ought to know best among the laity and the profession have spoken otherwise, and have stated that they have to reject many necessitous cases. Dr. Fleming was good enough to say, that the unskilled labourer at £1 per week should in a serious illness be the recipient of the benefits of a public hospital. But if Dr. Fleming bases his calculations on their wage, then I must tell him that there are thousands in Glasgow and other cities of unskilled labourers not earning more than 16s. per week. Dr. Campbell Black, in his well spiced contribution to the debate, taunts me with being insufficiently enlightened with regard to *personelle* and habits of many connected with the working of our infirmaries, and likewise in the political economy problems. Perhaps that is so. But I am not without companions in this respect, for it is simply a *reductio ad absurdum* to say that certain classes who claim free access to hospital might as well claim free butcher meat. Dr. Black pitches his wage-earning class at 25s. to 30s., who should not have the benefits of a charity. But there may even be exceptions made in favour of this class in cases of surgical operations and chronic ailments, and Dr. Black also seems to forget that there are thousands upon thousands who do not earn more than half the wage he refers to. Dr. Black's bogie is not a new one. It has been raised again and again in vain in

connection with the great educational question. I am afraid Dr. Black has not yet mastered all the main points embraced in sociology and political economy. He is opposed to a Central Board, and considers it Utopian. If so, it is the very thing which, in the interests of equality and justice, the people after sixteen years' experience desire in regard to the enlargement of the School Board and the enlargement of the governing body. Dr. Fleming did not raise any objection to a commission. It must be local, not imperial. I want no more. Given the commission, I do not fear the result. But why he should prefer a local commission to decide where there are so many clashing interests is puzzling, and is certainly opposed to the ideas of our municipal governors, who, in extending their area, have got a commission of disinterested people. Dr. Hugh Thomson referred to the splendidly equipped hospital of the Birmingham Union with 600 beds. Such hospitals in London and elsewhere are doing very much the same kind of work as is done in our infirmaries. It goes a long way to prove that the voluntary hospitals are not overtaking the work, and are not keeping pace with the wants of the community, and the custodians of the municipal and parochial purse admit the necessity. I think it will hardly be contended that English men or women part with their money any more readily than Scotch. And yet it must strike you as strange that whereas 2,336 died in all the Liverpool hospitals, only 1,881 in Glasgow. There is only one explanation, and that is that more hospital provision (including the Unions) is made for the wants of the sick-poor in English than Scotch towns. And, even with this limited hospital accommodation, I question if young medical men find Glasgow an El Dorado to settle in. It strikes me they prefer to settle south of the Tweed. Dr. Wolfe was right in the remark that the infirmaries were in a sense little better than co-operative societies. There is much force in this—an aspect of the question I had overlooked. It simply means contributions amounting annually to thousands of pounds received from bodies of workmen and from churches on certain conditions and for value to be received in the shape of lines. Dr. Parry spoke of convalescent homes. Well, if the extension is to be solely in that direction, it matters not. They are needed, and their existence would liberate hundreds of beds at present occupied. Mr. H. E. Clark prided himself on the low mortality in the Glasgow hospitals being an argument in favour of the *status quo*. I entirely dissent from that view. I scarcely think he will seriously contend that the knife or

stethoscope is wielded any better in Glasgow than in Liverpool and other urban hospitals. But if he does, he will find on enquiry that in cities where the hospital mortality is small, the death-rate of the cities themselves is high—the plain inference being that if the poor do not die in the hospitals, they die in their homes with all their drawbacks. I think I am entitled to ask Dr. Erskine, in consideration of his opinions upon my data and figures, seeing my paper has been before him for two months, why he has not given evidence of a satisfactory and conclusive character to show that the accommodation is adequate. But he has given none. I am at one with him in many of his strictures on the present working of our hospitals. The question of the freedom of the hospital, by whatever way achieved, is fast ripening into a people's question, and if medical men fold their hands in apathy and allow things to slide, I take leave to say it will be taken up by those who will speedily settle it. Already statesmen identified with social reform are moving, and I earnestly trust that the day is not remote when the hospitals shall, like every other institution, be reformed to suit the exigencies of the time.

The Chairman (Dr. Wallace Anderson) thought that good would come from Dr. Sutherland's paper.

CURRENT TOPICS.

ROYAL INFIRMARY.—ANNUAL MEETING OF THE DIRECTORS WITH THE NURSES.—The annual meeting of the managers with the nurses in the Royal Infirmary was held on the forenoon of New Year's Day in the Dispensary Hall of the institution. There was a large gathering of the nurses and other officers of the Infirmary. Sir James King, Bart., the Lord Provost, presided, and among other gentlemen on the platform with him were Professor Gairdner, and Drs. Morton, Dunlop, and Thomas. The proceedings were opened with the singing of the Hundredth Psalm.

The Lord Provost, in the course of his address, said that the good custom of the managers holding a New Year's Day meeting with the nurses had been inaugurated 21 years ago by a predecessor of his, Sir James Lumsden, and he thought that the custom, having now obtained its majority, might be looked upon as having become a permanent institution for the future. The chief event in the history of the Infirmary

during the past year was that the nurses had now been provided with a comfortable home, in the building and furnishing of which no expense had been spared to make it all that it ought to be. He had no doubt that the foundation of the home would conduce much to the health and comfort of the nurses, because absence while off duty from the wards and sleep in pure air must have a very salutary and beneficial effect, and must render them fresher and more able for their work in the morning. His Lordship next referred to the foundation of the Victoria Nurses' Institute, not because the Victoria Institute had any immediate or direct bearing upon hospital nurses, but because it was absolutely necessary that the women who were to be engaged in the work of nursing the poor in their own homes must first of all be trained in our large hospitals. There was no doubt that the foundation of the Institute would tend still further to raise the status of the nurses. His Lordship then introduced Dr. James Dunlop, the lecturer of the day.

Dr. Dunlop, after briefly referring to the origination of the annual address to the nurses by the late Chairman of the House Committee, Mr. Wm. M'Ewen, said that he had chosen as his text "The Nurses, the Directors, and the Doctors." Having referred to the great value of skilled nursing in the treatment of the sick, the lecturer went on to say that the Florence Nightingale wave for having professionally trained nurses in our civil hospitals at home did not beat against the walls of the Royal Infirmary with any satisfactory result for fully nine or ten years after the Crimean war. Up till 1863 the old fashioned nurse held sway in the medical and surgical wards. In 1865, Mr. M'Ewen, who had been a director for two years, became chairman of the house committee, and soon after changes of a beneficial kind were made in almost every department of the hospital. The policy inaugurated in 1865 had been steadily pursued ever since, and had culminated in their having now a well equipped hospital and a home for nurses, which, they were told by one of the highest authorities, Lady Rosebery, for comfort, luxury, and elegance, could not be surpassed in the kingdom. Dr. Dunlop then briefly referred to the other nursing institutes of the city, and pointed out that many of the nurses of these, as well as nurses over the whole world, had received their training within the walls of the Glasgow Royal Infirmary. Twenty-two nurses who had received their training in the Royal Infirmary were now occupying responsible positions in other hospitals. He suggested that a scheme might be devised

whereby nurses showing special aptitude might be selected for promotion and practically educated in hospital economics and in hospital management. From a statement recently published on the expenditure of large hospitals, they found that while the average expenditure per bed per annum in London was £79, in Birmingham, it was £67; Manchester, £64; Liverpool Royal Infirmary, £55; Edinburgh Royal Infirmary, £55; Glasgow Western Infirmary, £49; and Glasgow Royal Infirmary, the lowest of all, £47. The last institution, therefore, was an excellent school for the study of hospital expenditure and administration. There was, however, no parsimony or niggardliness in its management, and anything that money could procure to promote the comfort or prolong the life of a patient was always readily obtained on the order of a physician or surgeon. Dr. Dunlop, after briefly referring to the National Pension Fund for Nurses, went on to speak of the Queen Victoria Nurses' Institute. He regretted somewhat that it had been decided to have this institute in Edinburgh, for the reason that if it claimed national support it might interfere injuriously with the fully equipped training home for district nurses, which had been so successfully carried on in Glasgow for ten or twelve years. The Glasgow institute had been doing admirable work among the district poor in their homes, and nurses trained in district work in our city were now similarly employed in various parts of Scotland and England, and the £300 a year would have been a welcome contribution to its funds. He hoped that the Edinburgh institute would not in any way diminish the interest in, or the needful support of, our own institution. After briefly referring to the meeting of the British Medical Association in Glasgow, Dr. Dunlop urged the claims of a closer relationship existing between the Infirmary and the Convalescent Home.

Mr. Hugh Brown, Chairman of the House Committee, moved a vote of thanks to Dr. Dunlop and read the hospital statistics for the year, and after a few other brief addresses the meeting dispersed.

We have to congratulate the annual meeting of the Royal Infirmary nurses upon its twenty-first anniversary, and to re-echo the sentiment of the Lord Provost. There can be no doubt that the regular holding of such meetings must be of great interest to the nurses themselves and must prove a source of encouragement to them in their work. The nurses are led to feel that their labours are of value, and that nursing, as a profession—we might almost say, a learned

profession—for women, is every year becoming more and more organised and established. We entirely reciprocate Dr. Dunlop's desire that the foundation of the Victoria Nurses' Institute in Edinburgh will in no way injure our own Glasgow Sick Poor and Private Nursing Association, which for many years has done such good work in our midst. Of the Association itself and of the objects for which it exists, the city may well be proud, and we are pretty sure that had the Scottish Branch of the Victoria Institute been established in Glasgow, where the ground has been so well prepared for its labours, it might have been better for it. We are inclined to think that even yet an affiliation of the two bodies might with great advantage be carried out, but we would be entirely averse to any union which would tend to abolish the individuality of the Glasgow Association, which would fail to recognise the excellent work it had already accomplished, or which would tend in the slightest to diminish the laudable interest and pride which our citizens take in the local Association. Could a union be effected on these lines we would hail it with satisfaction, and we feel assured that it would prove a great source of strength to both organisations.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.—The quarterly examinations in Edinburgh for the triple qualification took place in January, with the following results:—

First Examination.—Of 60 candidates, the following 36 passed:—John Sinclair Robson, Moneymore; Daniel Joseph Murphy, County Cork; James Smith, Montrose; William Charles Croxford, Brentford; Percy William Menzies, Maidstone; Philip Johnson, London; Shaw Busted Haynes, Cork; Miss Anne Augusta Wilson, Baltimore, U.S.; William Phayre Ryall, Isle of Wight; Miss Harriet Maude Mary Hughes, London; Miss Beatrice Emma Shaw, Ashton-under-Lyne; Nicholas Cullinan, Cork; Alexander Gibson Clark, Forfarshire; Alfred William Spinks, Bradford; Herbert Meggitt, Barton-on-Humber; Murdo Murchison, Portree, Skye; Robert Richard Hughes, Carnarvon; Alfred Charles Festing Smith, County Donegal; Henry Lawrence M'Culloch, Victoria; Morris Jones, Merioneth; John Charles Mockler, County Armagh; Donald Richard Macfie, Tamworth; Albert Francis Walker, Liverpool; Alexander White Robertson, Edinburgh; Robert Bruce, Edinburgh; William Reade Gardiner, Chili; Charles Richard Webster, York; William Henry Bain Wood, Jedburgh; George William Hitchcock, India; Frederick Edward Rainsford, Ballinasloe, County Galway; Thomas William Norton, Rotherham; William Impey Taylor Baker, South Africa; Sydney Henry Merryweather, Yorkshire; Charles Edgar

Whitcher, London; John Hutchinson Garner Howe, County Down; and James Irving Carson, Stockton.

Second Examination.—Of 62 candidates, the following 28 passed :—William Henry Nash, Dublin; George William Johnstone, Edinburgh; Arthur Ernest Taylor, Cardiff; Herbert Blackburn, Manchester; James England Brogden, Portsmouth; Thomas Joseph Talbot, Dublin; Miss Emily Day, Beverley; Robert Day, Stokes, Woolwich; David Cameron Carnduff, Berhampore; William Phayre Ryall, Isle of Wight; John Thompson Hislop, Helensburgh; George Sidley, Perth; Henry Robert Wray, Strange, Madras; Joseph Henry Hodson, Russia; Frank Provis Dodd-Thomas, Chester; John Sinclair Robson, County Derry; George Watt Anderson, Arbroath; John Albert Phillips, Dublin; Thomas Charles Duffin Johnstone Cathcart, Kells, County Antrim; John Stewart, County Tyrone; Alexander Geddes Vernor, Musselburgh; Alexander Lister, Haydock; James Finlay, Longford; Frank Dinsmore Holmes, Belfast; Francis Joseph Flavin, Doncaster; Martin James Mahoney, Horden; Nicholas Charles Boyle, Shorncliffe; and Bernard Tonkys, Bilston.

Final Examination.—Of 72 candidates, the following 42 passed, and were admitted L.R.C.P.E., L.R.C.S.E., and L.F.P. and S.G. :—Walter MacDonell, Kelly, Crook, Durham; Arthur Henry Poole, Bolton, Lancashire; Thomas Frank Southam, Cheshire; James Arthur Thomas Hall, Derbyshire; Miss Agnes Douglass Craine, Smith's Falls, Ontario; James England Brogden, Portsmouth; Francis Seymour Fairbridge, South Africa; John Thomson Biernackid, Allahabad; John Morgan, Whiteford, Larne, County Antrim; Alfred James M'Farlane Stenhouse, Fife; William Sinclair Cameron, Liverpool; George Elliott, Derry; Henry M'Neil Smith, Canada; Percy William Menzies, Maidstone; Charles Augustus Bynoe, Barbadoes; Walter Smithies, Clitheroe; Robert Geo. Spiller, Cork; John Joseph Ashley Keane, County Kerry; Clarence Alfred Joseph Wright, Madras; Clifton Sturt, London; Andrew Wilson, Glenann, County Antrim; William Smith, Jamaica; David Montgomerie Paton, Hurlford, Ayrshire; Antonio Cesar Rodrigues, Demerara; James Harvey Martin, Ballynahinch; William Patrick O'Meara, Bruff; Edmund George Howard, Clitheroe; Linford Elfe Row, Sydney; George Herbert Rutter, Kent; James Menzies, Kenmore, Perthshire; William Henry Frederic Fenn Godwin, London; William Shortt, King's County; William Power Everard, Athlone; David Kinnear Draffin, Ballybay, County Monaghan; William Smyth Crawford, County Down; Alexander John Keiller, Edinburgh; Edward Blackwell Roberts, Mold; Ernest James Cheetham, Rochdale; James Aloysius O'Sullivan, Kingstown; Adam Ramage, Kilmarnock; Herbert Heyworth, Nelson, Lancashire; and Bangard Annassamy Sinnatambou, Port Louis, Mauritius.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—During the January sittings of the examiners the following gentlemen were

admitted Licentiates in Surgery :—Henry Knowles, Yeadon, Leeds ; Kenneth MacKinnon Douglas, Edinburgh ; Sydney Harry Appleby Stephenson, Nottingham ; and Theophilus Bulkeley Hyslop, Inverness. The following gentlemen passed the first professional examination for the License in Dental Surgery :—Albert Maurice, London ; Arthur Percy Stocken, Ealing ; Charles Henry James Acret, Canada ; Walter Graham Routledge, Exeter ; Thomas Jackson, Preston, Lancashire. And the following gentlemen passed the final examination, and were admitted L.D.S., Edinburgh :—Thomas Cuthil M'Kenzie, Edinburgh ; John Edwin Husbands, Bristol ; John Stewart, Edinburgh ; Frederic Jones, Lancashire ; and John Henry Larbalestier, Southampton.

THE GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—The Society will meet in the Faculty Hall, 242 St. Vincent Street, on Monday, the 11th February, when the following specimens and cases will be shown :—

Drs. Gemmell and Newman—A specimen of primary tuberculosis of the kidney with obstruction to the ureter and secondary ulceration of the bladder. Dr. Finlayson—Specimens of the larvæ of a dipterous insect (probably *anthomyia canicularis*) passed alive in swarms from the intestines of a man. Dr. Thomas Reid—Specimens of three kinds of orbital tumours ; (1) a carcinoma, (2) a melanotic sarcoma, secondary, (3) a fibroma. Professor George Buchanan, for Dr. Rutherford—The dissected parts of a case of dislocation of the femur. Dr. David Newman—(1) A case of cystic disease of the kidney, (2) a case of congenital hydronephrosis.

At this meeting, the one vacancy in the membership of the Society will be filled up.

A special meeting, of the Society will be held on 25th February for the exhibition of "rare and interesting cases and specimens of skin disease." It is hoped that gentlemen, members, or otherwise, who have cases to show will intimate their intention of doing so as early as possible.

A. ERNEST MAYLARD, *Hon. Sec.*,
4 BERKELEY TERRACE.

J. LINDSAY STEVEN, *Hon. Edit. Sec.*,
34 BERKELEY TERRACE.

GLASGOW SICK CHILDREN'S DISPENSARY.—On the afternoon of the 26th December last, the Ladies' Committee and the hospital sisters in charge of the dispensary gave a Christmas treat to the older children attending for treatment. Tea was provided for about 50 children, and after tea, the ladies exerted themselves to the very utmost to provide games and

amusement for their little guests. The children enjoyed themselves very much, but there was a subdued and rather sad air about many of them, which kept the hostesses constantly in mind of the fact that their juvenile guests, in addition to poverty and adverse physical surroundings, were also suffering from disease. The parents of the children came for them about 6 p.m., and took them away highly pleased with their entertainment.

GERMAN MEDICAL CONGRESS.—The eighth meeting of the *Congress für innere Medicin* will be held at Wiesbaden from the 15th to the 18th April, 1889. Herr v. Liebermeister, of Tübingen, will fill the office of president. Herr Schultze, of Bonn, will deliver a funeral sermon on Herr Rühle. The following subjects are set down for discussion:—Monday, 15th April, "Ileus and its Treatment," introduced by Curschmann and Leichtenstein; Wednesday, 17th April, "The Nature and Treatment of Gout," by Ebstein and Emil Pfeiffer. The following communications have been promised:—By Immermann, of Basel, "On the Functions of the Stomach in Tubercular Phthisis;" by Petersen, of Copenhagen, "On the Hippocratic Methods of Treatment;" by Fürbringer, of Berlin, "On Impotence in Man;" by Lewin, of Berlin. "On the Preparation and Action of Drugs."

REVIEWS.

A Dialogue against the Fever Pestilence. By WILLIAM BULLEIN. From the edition of 1578, collated with the earlier editions of 1564 and 1573. Edited by MARK W. BULLEN and A. H. BULLEN. Part I: The Text. London: Published for the Early English Text Society by N. Trübner & Co., 57 and 59 Ludgate Hill. 1888.

IN publishing this the fourth edition of an old book by an old and now almost forgotten author, the Early English Text Society has done good service, and we can promise that any of our readers, who will take the trouble to peruse the volume, will find that they have spent some of their spare time both with pleasure and profit. From its pages they will obtain some idea of the social and intellectual life of England in the 16th century, and they will come to the conclusion, as we have done, that human nature—its hopes and its fears, its strength

and its weakness—was essentially the same three hundred years ago as now. With regard to the healing art, they will probably also recognise as they had never done before, that while the science of medicine has made enormous advances in every department, the essential fundamental principles of the art of healing have not progressed to anything like the same extent. They will find in Bullen's *Dialogue* directions on sanitation and on the prevention of infection which would not discredit a sanitarian of the 19th century, and they will appreciate that, after all, our great scientific advance has in many departments of medicine simply enabled us to understand aright, and to apply rationally, those general principles and rules which from the very earliest times have guided medical practice.

A true defender of the Protestant faith was William Bullein, and in the discourse of Theologus to the dying "Civis" we will find a compendium of Christian doctrine as serviceable to the citizen of the 19th as of the 16th century:—

"Confesse thy synnes from thy harte ; aske mercie, bee thei neuer so red and many in number ; Jesus hath washed them in his bloud, and sprinkled them with Hysope, and made theim white as Snowe. Now plaie the manne in Christe ; feare not to departe this worlde ; Christe is gone before with his holie Prophetes, Apostles, Martyres, Confessours, and Virgins, penitent theeues, and harlottes, also there is the Armie of Angelles before his Throne, with ioye incessantly honouryng hym."

Consider the remarks on the pride of birth and the possession of great wealth, and see if they are not as applicable to us as they were to the plague stricken citizen of three centuries ago in the day of his sore distress.

"Remember this ; be not proude of noble parentage, of riches, beautie or cunyng, but rather consider where are the old lustie Kynges, Queenes, Lordes, Knightes, Ladies? . . . All are gone and passed like shadowes, wasted, and come to nothing, as Saincte Augustine affirmeth."

On riches, listen to the old doctor :—

"It is the maister of some riche men and women, which kepeth it to their greate hurte. And the foolishe Prodigall waster, whiche commonly succedeth the gatherer, spendeth it soon awaie in wickednesse, as it is saied, easie gotten gooddes are sone spent. Therefore, sufficient, as a meane, is well to a Christen man for sundrie causes. For thei that will be riche fall into sondrie temptations, cares, broken sleapes."

In the last two words spoke the physician, and they could

be verified by medical experience now as then in all large centres of population.

William Bullen, or Bulleyn, author of the *Dialogue*, was born early in the 16th century in the Isle of Ely, and came of the same family as the unfortunate Anne Boleyn. He was educated chiefly at Cambridge, and during the reign of Mary he practised medicine in Norwich. Afterwards he held for a few years the rectory of Blaxall, in Suffolk, and finally he settled in medical practice at Durham, where he met with great success. His first book, entitled the *Government of Health*, was dedicated to his friend and patron, Sir Thomas Hilton, Governor of Tynemouth Castle. The original MS. of this work was lost in a shipwreck, but in 1560 was rewritten by Bullen in London, and was one of his best known books. During the later years of his life Bullen experienced many anxieties, and was subjected to an action for malpractice "before that noble prince, the Duke's grace of Norfolk" by his inveterate enemy, William Hilton, the brother of his patron. "But," says the doctor, in describing this incident, it is written, "*Testis mendax perebit*, a false witness shall come to naught; his wicked practice was wisely espied, his folly derided, his bloody purpose letted, and, finally, I was with justice delivered." Notwithstanding the enmity of his persecutor, who afterwards tried to have him assassinated, Bullen died in peace and honour on 5th of January, 1576, and was buried in St. Giles's, Cripplegate. For these particulars with regard to the life of Bullen we are indebted to a work entitled, *The Healing Art*, by an anonymous author, published by Ward & Downey, of London, in 1887.

The dialogue, from which we have already given a few extracts, is carried on by "twelue persones," the "interlocutours,"—viz., Medicus, Ciuis, Uxor, Mendicus, Antonius, Roger, Crispinus, Auarus, Ambodexter, Mendax, Mors, and Theologus.

The opening dialogue between the citizen and his wife and the "good manerly begger at the doore," who, as is not unusual, is more leniently dealt with by the husband than his wife, is true to life and full of quaint humour. Uxor, who "will heare him saie the Lordes praier better" before she gives him anything, taxes Mendicus with being a Scot by his tongue, an imputation which is at once repudiated as follows:—

Medicus.

"Trowe me neuer mare then, gud deam. I had better bee hangad in a withie or in a cowtaile, than be a rowfooted Scot, for thei are

euere fare and fase : I haue been a fellow sharpe manne on my handes in my yonge daies, and brought many of the Scottes to ground in the Northe Marches, and gaue them many greisly woundes ; ne manne for manne durst abide my luke, I was so fell."

But notwithstanding all his bravery the Scots had burnt his goods, and reduced him to beggary in his old age. The beggar is recommended by the citizen to look up the rich and noble Italian merchant, Antonius, who, stricken of the plague, is giving largely of his goods to the poor, and who, as he informs Medicus, his physician, "could never have died in a worse time, his business is such." Listen to the natural desire of the sick Antonius :—

"I would of all thinges liue still, for here I do knowe what I haue and how I am used, but when I am gone I doe not knowe what shall happen unto me, nor whom to trust with that which I have gotten with trauell and obtained by fortune."

Who can tell how often this sore trouble of poor Antonius has been experienced since then !

In Avarus and Ambodexter we have a typical picture of the men whose sole interest in the unfortunate Antonius is to be measured by the amount of his great wealth they may be able to obtain for themselves, and who exercise all their cunning to "perswade with hym, by little and little, to bee Executours of his Will according to his old promise."

The discourse between Medicus and his cultured as well as rich patient, Antonius, is, as is meet, full of the ethics of Aristotle and of the doctrines of Hippocrates, Galen, Avicenna, and the other old masters of the healing art. Antonius betrays a most laudable interest in the etiology, pathology, and treatment of the pestilence which has laid him low, and the doctor, though with what soothing effects on the nerves of his patient we know not, is not less willing to discourse learnedly to him on the subject at great length. This part of the book will, no doubt, prove of great interest to medical readers of the present day, and with another hearty commendation of the old volume, we conclude our notice with a few medical extracts.

"*A goodly rule against the Plague.*—Music is good in this case, and pleasaunt tales, and to haue the meates well sauced with cleane sharpe vineger. Forget not to keepe the chamber and clothyng cleane, no Priuies at hand, a softe fire with perfumes in the mornyng. Shifte the lodging often time, and close in the Southeaste windowes, specially in the tyme of mistes, cloudes, and windes ; and vse to smell vpon some pleasaunt perfume, and to bee letten bloud a little at once, and to take Pilles, *contra pestem* ; that is a good preseruative against the plague."

On blood-letting, Medicus holds forth as follows :—

Medicus.

“Blood must be letten in the beginnyng of the sicknesse. For example, like as a pot is clensed of the scumme or fome in the beginning when it plaith on the fire, and thereby the liquor is cleansed within the potte, even so bloodlettyng and pilles doe helpe and cleanse the Pestilence when it beginneth firste to boile within the bodie. Howbeit, *certaine people maie not bleede, as women whiche have their times aboundauntlie, or menne having fluxe of the Hemoroides, children verie young, or people weake and aged.*

Antonius.

I prae you what quantitie of blood must be letten.

Medicus.

Forsoth, *fewer vnces, or little more*, and must bee doen euery moneth, sometye in the *Median*, sometye in the *Basilica*, &c., and not to slepe after the same during six, seuen, or eight howers.”

The italics in the above extract are ours. It would seem that Bullen, in the middle of the sixteenth century, was rational in the practice of blood-letting.

For the benefit of our surgical friends, we quote the learned physician's remarks upon the operative treatment of the Plague sore “Carbunculus, of Carbo a Cole, or *Anthrax*.”

“And now foloweth a perill to the *Chirurgian*, which must be richly rewarded, for he putteth his life in daunger in that, that he helpeth the sore bodie infected ; hee ought to be prouident that doth take this matter in hand, and before he cometh to the pinch to eate his *antidotarie* of *Metridatum*, or to have a sponge with strong vinegar applied to his nosthrelles, to arme hymselfe against the poisoned aire ; and to take his launce in his hand accordyng to the art, taking heede that in launcyng he cutte no vaine or sinewe which haue societie with eche other, therefore launce not verie depe, . . . then thinicion must be made in the lowest place, so that thereby the matter maie the soner auoide.”

In the last sentence of this extract, we have the surgical principle of free drainage in a nutshell. After a lengthy discourse on the Carbuncle, Medicus winds up, surely we cannot help thinking to the great relief of his patient, with a—“Sir, forget not this, I prae you.” There is a mixture of humour, cynicism, and benevolence in the hopeles reply of Antonius :—“No, maister doctour, I warrant you I haue noted it well ; and though it helpe not me, yet I trust it shall doe good to others when I am gone.”

An Illustrated Encyclopædic Medical Dictionary. By FRANK P. FOSTER, M.D., Editor of the *New York Medical Journal* (with the collaboration of several American contributors). Vol. I, A-CAC. London: Thomas Sealey Clark & Co. New York: D. Appleton & Co. 1888.

THE work before us is another example of the cosmopolitan or polyglot character of American medical literature. A nation made up of such diverse elements, which yet stamps them all with the English character in language and thought, is able to confer a great benefit on the entire English speaking peoples of the world, by bringing into view in a strictly scientific form the more important usages of other modern languages.

We have carefully read the preface of this great work, and have been much impressed with what we are accustomed to regard as the English quality of common sense, which has prevented the editor from being carried away by a pedantic or rigid idea of accuracy and consistency. This comes out in the Instructions issued to the collaborators, which are given here. "As regards definitions—the most important point in a work of this sort—it should be borne in mind not only that the etymological signification is to be elucidated, but that the reader must be enabled to form a satisfactory idea of the *thing* the word represents. . . . Definitions must not be taken verbatim from books; let the contributor read books to assure himself of the meanings that various authors attach to words, but let him express those meanings, in his own terms."

The dictionary is one, not merely of medical science, but includes terms in the cognate sciences. The extent to which this is carried out may be gathered from the following extracts from the preface:—

"Chemical terms have been included with fewer exceptions than those of the other sciences in question. An illustration of the wisdom of this course is to be found in the recent importance assumed by acetanilide ('antifebrine') in medical literature, although it was before of interest only to chemists."

"In botany the plan has been to include, along with descriptive terms, all classification names ranking above those of genera. . . . The popular and the commercial names of plants and vegetable drugs, in English, French, and German have also been included, as well as the native names of plants that are brought from countries where other languages are spoken."

"In zoology the same plan has been followed as in botany."

As the animal kingdom contributes but little to the *materia medica*, the list of names of genera and species given is naturally very brief."

The editor had a somewhat difficult matter to deal with when he undertook to include in his dictionary terms from the modern European languages. The rule followed in regard to the *materia medica* indicates how this difficulty has been dealt with.

"In general, when any preparation is comparable with one that is official in the United States Pharmacopœia, it is defined under the Latin title there given: otherwise under the corresponding title in the British Pharmacopœia, or if that gives no analogous preparation, under the corresponding title of the German Pharmacopœia."

The editor has, we believe, exercised a wise discretion in regard to the various points in which changes are occurring in language.

"The present tendency to omit the hyphen from compound words has been followed strictly in the case of names of chemical compounds, but in other cases some variation has been made; in general the hyphen has been retained where it came between two vowels (as in *intra-ocular*) but omitted from other words of like construction (as in *intraperitoneal*). . . . In general, regard has been paid to etymology, in giving the preference to one of two or more ways of spelling a word, but it has not been thought best to insist upon radical deviations from widely prevalent usage. For example *aneurysm* has been preferred to *aneurism*; *thyreoid* to *thyroid*, and *lacrymation* to *lachrymation*. . . . Latin words derived from Greek words beginning with ρ will be found spelled with *rh* instead of *r* (e. g., *rhachitis*, not *rachitis*). So too in such compounds as *hydrorrhachis* (preferred to *hydrorhachis*) the plain and unequivocal rule of the Greek language has been followed—namely, that when a prefix ending in a short syllable is united to a word beginning with ρ then the ρ must be preceded by ρ In German words spelled indifferently with *c* or *k*, the former has generally been preferred. The recent tendency to change *th* to *t* (e. g., to write *Weichteile* instead of *Weichtheile*) it has not been thought best to follow."

In regard to pronunciation, a key is given at the foot of each page, and the general principles followed are thus expressed:—

"The pronunciation of Latin words is given according to both the English and the Roman method, the Continental method being ignored—not because it is considered less

reasonable than the English, but because this dictionary is designed chiefly for the use of persons who commonly speak the English language, by whom many of the commoner Latin words have ceased to be considered as foreign, and except when combined with other Latin words, or inflected according to Latin forms, are treated as English by adoption. The Roman method, strange as it may seem to those who are unaccustomed to it, and who now see it for the first time in a medical dictionary, is the one now taught in the leading universities in this country, and it will doubtless be adopted everywhere within a very few years."

It will be seen from these extracts that the Dictionary is based on advanced and comprehensive principles, aiming at a degree of completeness not hitherto attempted. From an examination of a few of the pages in the body of the work, we believe that it fulfils the promise of the preface. One can find here in small compass almost any information that is wanted, from the course of the internal carotid artery to the description of a small town in the Pyrenees which happens to have mineral springs. The botanical descriptions are illustrated by good woodcuts, and there are frequent anatomical illustrations, as well as of surgical and medical instruments.

We are able cordially to welcome the work, and to recommend it without reserve to our readers. The work will be completed in four volumes. It will be issued to subscribers only.

The Commonhealth: A Series of Essays on Health and Felicity for Everyday Readers. By BENJAMIN WARD RICHARDSON, M.D., F.R.S. London: Longmans, Green & Co. 1888.

THE volume before us consists chiefly of addresses which on various occasions have been delivered before sanitary and other societies of the kingdom.

The subjects discussed in the twelve essays are:—The Seed-Time of Health, Health and Recreation, Health and Recreation for the Young, Health through Education, National Necessities as the basis of National Education, Diseases incident to Public Life, Woman as a Sanitary Reformer, Dress in relation to Health, The Poverty of Wealth, Upper and Lower London, Felicity as a Sanitary Research, and, Cycling as a Health Pursuit—Physical and Mental.

These essays or public addresses were delivered by Dr.

Richardson chiefly to learned societies, but the various subjects are so discussed as to bring them within the category of popular addresses. Dr. Richardson possesses the somewhat rare faculty of rendering every subject on which he writes or speaks interesting and attractive, and the essays before us are specially so. Indeed, after commencing to read any one of these essays, it is almost impossible to lay down the book before reaching the concluding page.

The Seed-Time of Health, the Presidential Address delivered to the Brighton Health Congress, Felicity as a Sanitary Research, delivered to the Congress of the Sanitary Institute at Glasgow, and the Poverty of Wealth, are model essays or public addresses, adapted to all classes of society, and are as fascinating in print as when delivered with charming eloquence from the platform.

In the essay on "The Poverty of Wealth," he sums up as follows:—"The reformation, as I venture to argue, is the same as that which Joseph Mazzini applied to the perfection of democracy. It is 'an educational problem; it is the eternal problem of nature,' in which the idea of wealthy leisure and miserly rest plays no part whatsoever. The true reforming method is to instil into the minds of all men and all women the correct relationships of wealth and poverty; to exalt labour as the foundation of health and wealth; to expel the idea of rest on wealth; to teach the emptiness of the fallacy that it is either good or reasonable to provide for generations of unborn idleness; to show that all attempt to base the continuance of family name and fame on worldly possessions, mapped out from the dead earth by so much poor parchment covered with legal hieroglyphics, is but the insanity of vanity; and to impress on all minds, but on the minds of the young especially, the vital truths: that the family which shall live longest in its units, and in its membership, is the family that leaves the healthiest progeny; and that the nation which shall live longest is the nation which, being healthiest, is by necessity strongest, most active, and nearest to that eternal energy which would itself be dead if the atoms it animates were to fall into repose."

In the essay on "Diseases incident to Public Life," he says:—"To one standing aside and looking on at the political turmoil, it is marvellous that so much risk of life, vehemence of opinion, and utter uselessness of contention and labour should agitate the world. It can only be that political work is utterly wanting in all scientific accuracy that so many men madly rush into it. Half a dozen great political scholars,

working half a dozen months on a text-book of political science for the use of schools, might do more for the world, if their labours were accepted, than half a dozen parliaments, sitting out their full terms, and fighting each other from the beginning to the end of the chapter. Such fighting and killing, however, must be, until the long day when the truth dawns, that in matters where every one thinks he knows more than every one else, only a few know anything. But, while that day of light is dawning, let no one rashly believe that, in spite of all constitutional weaknesses, he can go on the political war-path with safety, either to his physical or to his mental organisations."

"The Commonwealth" is a series of essays on public health, of great interest and value, embodying the matured judgment of a pioneer in sanitary science.

The Milroy Lectures.—On Epidemic Influences; on the Epidemiological Aspects of Yellow Fever; on the Epidemiological Aspects of Cholera. By ROBERT LAWSON, LL.D., Inspector-General of Hospitals, &c. London: J. & A. Churchill. 1888.

THE late Dr. Gavin Milroy, who had for many years taken a deep interest in epidemiological questions, bequeathed a sufficient sum of money to the Royal College of Physicians of London to endow an annual course of lectures on State Medicine and Public Hygiene, and suggested that the selection of lecturers should not be limited to members of the College, but might be extended to medical men whether in the public service or in civil life, whose opportunities had enabled them to investigate various forms of disease in different regions of the world.

In the exercise of its authority, the Council of the College of Physicians requested Dr. Lawson to deliver the first course of lectures under Dr. Milroy's bequest. Dr. Lawson states, in the preface, that the selection of Epidemic Influences as the subject for the opening course, was made under the impression that it would have met with his approval, and that it really constitutes the first step in the investigation he desired. He says: "The terms epidemic constitution, epidemic influence, pandemic influence, are merely conventional expressions embracing those factors which lead to the diffusion and intensification of disease, from time to time, which are not referable to the individuals who suffer, or the localities in which they reside. Though the existence of such factors has

long been recognised, and their importance in etiological inquiries is manifest, yet wonderfully little has been done to ascertain their nature, or to indicate their mode of operation." It will, therefore, be observed that Dr. Lawson postulates the existence of some mysterious influence, apart from individuals or localities, which leads to the diffusion and intensification of certain diseases; but, though the existence of such factors was formerly almost universally recognised, it certainly is not so now.

In the 14th century, after the frightful ravages of "The Black Death," the Medical Faculty of Paris, having been commissioned to investigate the etiology of the outbreak, gave the following deliverance:—"We, the Members of the College of Physicians of Paris have, after mature consideration and consultation on the present mortality, collected the advice of our old masters in the art, and intend to make known the causes of this pestilence more clearly than could be done according to the rules and principles of astrology and natural science; we therefore declare as follows; It is known that in India, and the vicinity of the Great Sea, the constellations which combated the rays of the sun and the warmth of the heavenly fire, exerted their powers especially against that sea, and struggled violently with its waters. (Hence vapours often originate which envelop the sun and convert his light into darkness.) These vapours alternately rose and fell for twenty-eight days; but at last sun and fire acted so powerfully upon the sea, that they attracted a great portion of it to themselves, and the waters of the ocean arose in the form of vapour; thereby the waters were in some parts so corrupted that the fish which they contained died. These corrupted waters, however, the heat of the sun could not consume, neither could other wholesome water, hail, or snow, and dew originate therefrom. On the contrary, the vapour spread itself through the air, in many places on the earth, and enveloped them in a fog. Such was the case all over Arabia, in a part of India, in Crete, in the plains and valleys of Macedonia, in Hungary, Albania, and Sicily. Should the same thing occur in Sardinia, not a man will be left alive; and the like will continue so long as the sun remains in the sign of Leo, on all the islands and adjoining countries to which this corrupted sea-wind extends, or has already extended, from India. If the inhabitants of these parts do not comply and adhere to the following, or similar means and precepts, we announce to them inevitable death, except the grace of Christ preserve their lives."

Such were the conclusions arrived at, regarding the etiology of plague, in 1348, by the College of Physicians of Paris.

In 1888, the lecturer appointed by the College of Physicians of London, says :—

“From the examination of a large body of evidence on the manifestation of fever in many countries, and extending over many years, it became obvious that epidemics of that form of disease which became developed at various points, from time to time, passed uniformly to the northward until they finally disappeared. The length of the course of individual epidemics varied much, but the disease appeared for the most part in each locality in the odd or even year which characterised it. From the combination of several details, the period occupied in passing from the Cape of Good Hope to this country was found to be about six years, and the factor which determined this movement was evidently one of very general operation, and most likely connected with one of the natural forces. It was of great importance to define the position of this influence from time to time ; and after a good deal of consideration, it was found that this might be effected approximately, at least, by lines of equal magnetic dip. Assuming that the magnetic equator marked off the Southern from the Northern hemisphere, the isoclinals 30° , 53° , 70° , 80° north, and 30° , 53° , 70° south indicate fairly the different zones, characterised by having their excess of fever in the odd and even years respectively in both hemispheres ; and assuming that the factor proceeded northward like a wave, at a uniform rate between these lines, its advancing edge may be considered as leaving the southern boundary of the zone on first January and over-spreading it during the year, so as to leave the southern boundary of the next zone on the 1st January of the following one. It would thus become operative in the successive zones in odd and even years respectively, as it proceeded northward.”

The conclusions arrived at by Dr. Lawson are chiefly deduced from the mortality returns of the British army and navy, though other sources of information are utilised ; but in no case throughout the volume is an epidemic traced from its origin to its termination. Dr. Lawson seems to have taken for granted that some such general law as indicated by him must exist ; and, in searching for this hidden law, he fixes on the pandemic wave theory as that most likely to solve the difficulties of the question.

But the first question to be solved is the following :—Is there any reason to postulate the existence of such factors as epidemic constitution, epidemic influence, pandemic influence,

&c., which lead to the diffusion and intensification of disease apart from individuals or localities? We unhesitatingly answer, none whatever. Formerly, and until very recently, epidemic outbreaks were investigated from mortality returns only, and no attention whatever was paid to modes of communication from person to person, or from one locality to another; but, in more recent times, much attention has been devoted to the investigation of cases of sickness, apart from mortality, and to the mode by which such cases are communicated from individual to individual, either directly or indirectly. Thus, in investigating a local outbreak of any communicable disease, such as typhus, typhoid, small-pox, or cholera, the investigator does not work out the problem from the data afforded by the registrar of deaths, but from information regarding the first case of illness, and its connection with subsequent cases. Medical officers of health work out the problem as to the extension of epidemic diseases from such data, and from such data alone. The medical officers of the Local Government Board do so also. They are not guided in their investigations by "the rules and principles of astrology," nor by such occult influences as pandemic waves. It is only in the Medical Department of the Indian Service that such general laws are recognised.

The only mode by which epidemics can be generalised is, by investigating special epidemics; and in doing so, we do not require to postulate the existence of any occult influence or cause. There may be difficulties in tracing out the genesis of first cases, and also their connection with subsequent cases; but, as a general rule, these difficulties are disappearing, as we are constantly gaining knowledge regarding the natural history of epidemic diseases.

Regarding the influence of pandemic waves in the production of cholera, Dr. Lawson says:—"Epidemics of cholera, though not unfrequently occurring in the year more common to those of fever at any given station, yet seem rather to present themselves in the following one, so that localities which usually have their epidemics of fever in an odd year display their epidemics of cholera, for the most part, in an even one, and *vice versa*." He also says:—"The immense addition to the information regarding the manifestations and progress of cholera since the introduction of the registration of deaths in India, in 1865, together with the fuller accounts of its appearance and prevalence in other parts of the world, have shown the modifications of this idea are more numerous than was expected at first. But it still represents the facts

over great distances, in longitude, and for consecutive years, approximately, and affords facilities for arranging them, and in dealing with the progress of epidemics."

As previously observed, Dr. Lawson does not apply his pandemic wave theory to the elucidation of any great epidemic of cholera; nor does he test his theory by well ascertained facts regarding such epidemics. The great cholera epidemic of 1865-74, which had its chief centre of dissemination at Mecca, is one of the most successfully traced out epidemics on record, both before its appearance at Mecca, and after its extension from that centre. This epidemic passed along the East African coast, a second branch passing through Abyssinia and Central Africa. Another branch advanced through Lower Egypt, attacked the harbour towns on the shores of the Mediterranean both on the European and on the African sides. This, the first reported epidemic of cholera on the West Coast of Africa, was lost sight of at the mouth of the Rio Grande, in October, 1869, the same month of the same year in which the Central African branch of the epidemic reached the island of Zanzibar, and three months before it appeared in the Manyema country, in Central Africa. The great movement of the African branches of the epidemic was from north to south, but it also moved from south to north, from east to west, and from west to east along the lines of human intercourse. Europe was also invaded in 1865, and Halifax was infected, by the steamship *England*, in 1866.

The only portion of this great epidemic which Dr. Lawson refers to is the outbreak at Southampton, in 1865. During that year, the epidemic was in full force in the Mediterranean and the South of Europe, and Southampton was in communication with infected ports. Regarding this outbreak, which was investigated by the late Parkes, the following result is stated:—"The origin by an unknown epidemic influence alone or coinciding with local conditions, presents formidable difficulties, even if we cannot quite reject it. The origin by importation is deficient in precision of evidence." The modes of investigating epidemic disease were not quite so complete in 1865 as they are now; but, even now, the origin by importation is very frequently deficient in precision of evidence. But, on the other hand, the evidence is frequently very complete, amounting to demonstration. Dr. Lawson demands absolute demonstration of direct or indirect communication, in the one case; but, in regard to the pandemic wave theory, he asks us to accept without question his major premise that some such general law is necessary.

Dr. Lawson places great importance on the appearance of cholera in ships at sea in support of his theory. He maintains that these pandemic waves are "factors for cholera which the ships encountered in the localities where they suffered." Were these pandemic waves factors for cholera in mid-ocean, we would expect to have numerous instances of ships being attacked whether they sailed from north to south, or from east to west, or *vice versa*; but though several cases are cited, not one is given in which the pandemic cholera wave touched a vessel sailing northward from a port in which cholera did not prevail. In every case cited in which ships were attacked at sea, these ships sailed from cholera infected ports, or from districts where cholera prevailed.

Apart from theories, which we cannot endorse, the lectures contain much valuable statistical information, chiefly in regard to yellow fever and cholera epidemics.

Hunterian Lectures on Tension, as met with in Surgical Practice, Inflammation of Bone, and on Cranial and Intracranial Injuries. Delivered before the Royal College of Surgeons of England, June, 1888. By THOMAS BRYANT, F.R.C.S., Consulting Surgeon to Guy's Hospital. London: J. & A. Churchill. 1888.

THESE lectures have already appeared in the weekly journals; but collected together in the present form, they constitute a neat little volume of readable and instructive information. Mr. Bryant's long and matured experience well fits him to deal with clinical facts, and the large number of cases introduced in the text show with what care and consideration he handles the material at his disposal. In connection, however, with these narrated cases, we feel forced to admit a want of relevancy in some of the reports to the subject under discussion. Thus it is difficult to see what cases of necrosis with discharging sinuses—where, as treatment, an operation for freer drainage and removal of the sequestrum is required—have to do with the subject of tension. Had they been introduced to show the simple results of inflammatory tension, one would have seen some connection between the cases and the text; but the subject of treatment is made the chief object of their insertion.

Mr. Bryant makes a strange statement on the subject of inflammation; thus he observes: "To say, as students are taught, that death of inflamed tissue from tension is due to

the cutting off of blood supply to the inflamed part, is a fundamental error. The blood is in the tissues, but it is stagnant and not circulating. . . . It is a form of static, not of anæmic, gangrene—of death of tissue brought about by the stagnation of the blood in the capillaries, and not by a want of blood supply.” It is difficult to see wherein the distinction lies which Mr. Bryant wishes to indicate. For if blood lies stagnant in a part, then that part is not receiving the necessary blood supply, and is suffering in the same way as if the circulation were cut off from the part by any other means. Gangrene takes place almost as readily in a part passively gorged with blood as where the blood supply has been cut off by the ligature of a distant trunk.

Mr. Bryant states with much force, and no doubt with much truth, the importance of early incisions in inflamed parts. The waiting for evidence of pus formation is a practice to be highly condemned. The early incision relieves tension, and so prevents the necrosis of tissues which would otherwise with almost certainty take place.



On the Relief of Excessive and Dangerous Tympanites, by Puncture of the Abdomen. By JOHN W. OGLE, M.A., M.D. Oxon., F.S.A., Consulting Physician to St. George's Hospital.

“THE substance of this memoir appeared as a communication to the *Lancet* in July, 1887,” to use the words of the author, who in the present volume has considerably added to the work, embodying in its 111 pages a large amount of very interesting and practically useful matter on his subject, derived from various sources.

The conclusion at which the distinguished writer arrives is, that in certain cases, the procedure is not only legitimate, but that great relief, and in some cases permanent good, may result. He says:—“Consideration of the references given will show that the weight of evidence, the preponderance of testimony, is in favour of, and warrants this operative measure. They will be enough to demonstrate emphatically, and make obvious to those who have hesitation or fears as to the wisdom of the procedure, that the operation is not as some with whom I have conferred upon the matter would fain think, one to be regarded as an example of ‘magnificent indiscretion,’ a wanton and necessarily dangerous, and therefore culpable, act—a species, in fact, of professional assassination; but that it is

incontestably, when resorted to with circumspection and deliberation a legitimate procedure, attended by most benign results, and that may be undertaken *tuto, celeriter, et jucunde*; at any rate that it has strong evidence in its favour as a *dernier ressort*."

Those who love "authority" will be well repaid by a careful perusal.

Notes on Surgery for Nurses. By JOSEPH BELL, M.D., F.R.C.S., Edin. Second Edition. Revised and enlarged. Edinburgh: Oliver & Boyd. 1888.

THIS little book is a very simple and clear exposition of some of the common forms of disease and injury met with in general surgery. A short account is first given of a disease or injury and its treatment, and then such points as need to be borne in mind by the nurse in her particular department are indicated. The most uninitiated can hardly fail to glean some useful instruction.

MEETINGS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

SESSION 1888-89.

MEETING VIII.—14TH DECEMBER, 1888.

SURGICAL SECTION.

PROFESSOR M'CALL ANDERSON *in the Chair*.

I.—MULTIPLE OSSEOUS TUMOURS.

By S. GEORGE CAMPBELL, M.D., M.R.C.S.

Dr. Campbell showed a boy with multiple osseous tumours, and read the following notes of the case:—

A. T., aged 16 years. *History*.—Father has phthisis; mother, three sisters, and a brother, all healthy. According to mother the boy was healthy up to the age of twelve months, when he had "brain fever" with convulsions, from that time he has been more or less weakly. He could not walk till he

was five years old, and during the interval the bones of the legs and arms had become bent in various ways. Soon after he began to walk the bony outgrowths were noticed in different parts of the body; nothing is known as to their sequence and rate of growth, though the mother thinks that some have made their appearance in the last two or three years. The boy is stunted and ill-formed, and on examination presents well marked signs of having suffered from rickets, and the bony tumours (small and large) are almost innumerable. The long bones of the arms and legs are short, thick, and greatly thickened at the joints. The chest is much deformed, pigeon-shaped, and all the ribs at the junction of the bony and cartilaginous portions show small bony outgrowths.

The other exostoses are connected with the epiphysial ends of many of the long bones, while there are various localised thickenings in the shafts of the bones which may be better described as hyperostoses.

The tumours at the upper ends of the humeri and tibiae are of about the size of an average hen's egg.

The radius and ulna of the right arm are much curved backwards.

Mr. H. E. Clark said this case was a very interesting one and quite phenomenal in regard to number and distribution of the osseous tumours over the body. In some of them there was a relation to the epiphysial line, and it almost appeared as if the growth had been going on more rapidly at that point. In others of them, however, and notably on the scapula, they did not correspond with the epiphysial lines.

Dr. Buchan asked if there were any history of fractures, and

Dr. Campbell replied that the mother knew of no fracture.

II.—CASE OF INTRA-LARYNGEAL TUMOUR.

BY DR. DAVID LINDSAY, of Hamilton.

Dr. Lindsay then read notes, as follow, of a case of intra-laryngeal tumour.

The case which I wish to bring under your notice is that of a man, aged 58 years, who consulted me in July, 1888, complaining generally of failing health, evidenced by loss of sleep, strength, and weight, and of a pain in the back. He is a married man with no children. The family history is that of persons living to a good old age without suffering from malignant tumours. The father had two "wens."

His wife, aged 57 years, has been deaf for 25 years, and at

the present time she suffers from an alveolar tumour, probably malignant in nature, of the right side of lower jaw.

Personal History.—Has been in the ironmongery business for 44 years. Up till January, 1888, he has been decidedly intemperate, but since then teetotal. He has long used to excess a short black "cutty" pipe.

Throughout his whole life he enjoyed splendid health, except when indisposed through intemperance. He has wens. Till the beginning of May, 1888, he considered himself healthy in every respect, and at that time he weighed 11 st. 2 lbs. It was during this month of May he first began to complain, but his symptoms were general and had no particular reference to his throat. These were sleeplessness, occasional abdominal pains, and a fixed pain in the back in the region of the left kidney. He considered them so trifling, however, that he did not consult any doctor.

The man looked tolerably well, but there was considerable puffiness under both eyes, and his expression was anxious. The urine, on examination, proved healthy.

He only incidentally mentioned that at Hamilton Races, in July, he had been nearly choked by a piece of sandwich, getting black in the face, and having to be thumped on the back. He attributed this, however, simply to an accident which might occur to any one. Since this choking incident the voice had been a little husky, and he thought solids were not quite so easily swallowed sometimes.

At that consultation I merely examined the throat, using the tongue depressor, and saw nothing particularly amiss. He was put on a general tonic line of treatment, and I requested him to give up work for a time or to take it very lightly.

During the first week he felt better, but still slept badly. At the end of that time he came back complaining of hoarseness and same difficulty in swallowing solids, which, he thought, was the result of cold.

I then examined the throat with the laryngoscope, and found considerable hyperæmia about the larynx, and what I described to him as a "lump." This I told him would probably have to be removed, but it was just possible it might to a certain extent, be the result of inflammation.

I wanted him to consult Dr. Macintyre then, but he could not leave his work as his employer was from home, and he was in charge.

I recommended remedies with the view of relieving the inflammatory condition, and, *inter alia*, I painted the lump

with a strong solution of nitrate of silver. The relief was but little. He had to work both hard and late even then, and the result was a chill which induced feverish symptoms, and he was confined to the house.

He derived some benefit from steaming, &c., and gradually the feverish symptoms subsided. I examined the throat from time to time, but there was certainly no improvement as regards the "lump." I also showed the man to my friend Dr. Crawford, of Hamilton, who was very much interested in the case.

Coincident with severe pains shooting down the left side of the neck, the chain of deep cervical glands enlarged somewhat, not much, but suddenly.

When he felt better generally, I induced him to consult Dr. Macintyre on 19th September. He confirmed the diagnosis of tumour, and stated, "it is probably benign, but there may be a malignant element in it. It should be removed, and at once."

The patient consented to have the tumour removed, and we arranged that the operation should be at his own house in Hamilton.

In the interval, however, when eating an egg he accidentally swallowed a bit of shell, which evidently irritated the tumour, and as a result several mouthfuls of blood, and what he considered matter, probably mucus, came up. This I believe had the effect of reducing the size of the tumour, the patient spoke better, swallowed more freely, and indeed experienced great relief.

On examining with laryngoscope shortly after, I considered the tumour smaller, and there were several reddish spots on its surface. The blood had evidently come from the pedicle of the tumour however.

On 25th September patient called on Dr. Macintyre, and decided not to submit to operation then.

On 27th September, however, he again went to consult him, and as I could not go along with him, I asked Dr. Macintyre either to remove the tumour at once in his consulting room, or make any other arrangement he thought fit.

Dr. Macintyre reported as follows:—On the 19th September the patient called for me on the recommendation of Dr. Lindsay. He complained of "hoarseness and difficulty in swallowing," and stated that the doctor had advised him a long time ago to have his throat attended to, but he had had some difficulty in so doing. The history of the case was furnished by Dr. Lindsay. It was evident that there was a

little difficulty in producing the voice. Swallowing was also effected with difficulty.

On examination, the nose, naso-pharynx, and mouth were found to be fairly healthy, a slight tendency to anæmia being present. In the larynx, however, a distinct neoplasm was seen, as reported by Dr. Lindsay. It was whitish grey in colour; here and there slight reddened areas could be seen on its surface. It was kidney-shaped, and from the depression corresponding to the hilus a distinct pedicle was seen attached to the anterior surface of the upper part of the left arytenoid cartilage. The pedicle was surrounded by an area of inflamed membrane, which passed along both ary-epiglottidean folds, but more on the left than on the right side. The tumour moved with the movements of the larynx, and during inspiration it fell a little into the cavity. During expiration it was lifted upwards and forwards towards the epiglottis, which it touched. A considerable amount of mucus was seen around the affected parts.

I confirmed the diagnosis of Dr. Lindsay, and suggested intra-laryngeal operation, firstly, because the growth itself had the appearance of a benign tumour; and secondly, because it seemed possible to remove the entire neoplasm. While the local appearances gave these impressions, it was right to keep the other facts of the case in view, and so the statement was also made that there might be a malignant element in the tumour.

It was arranged that I should go to Hamilton and operate; but on the 25th September the patient called again to say he preferred to delay the operation. Two days later, however, he called, stating that he was prepared to have the tumour taken away, and this was accordingly done. The parts were sprayed with a 10 per cent solution of cocaine, Gibb's laryngeal snare was used, and the mass came away completely and painlessly with the first attempt at removal.

After the operation the throat improved rapidly, and no recurrence of the tumour has taken place until now. Indeed, the larynx is practically normal at present. The patient did not do well otherwise, however, for the glands became larger, and it gradually became apparent from the emaciation that his general health was undermined. On the 21st November I visited the patient at Hamilton with Dr. Lindsay. He had lost considerably in weight, the glands in the neck were the size of small apples, and formed a series of tumours extending from the side of the thyroid cartilage down to the mediastinum, and, owing to the pressure of these, the difficulty in swallowing

was marked. An œsophageal bougie was easily passed on this date, and on the 27th November the œsophagus was examined with Mackenzie's œsophagoscope, but nothing could be made out of importance.

The case is particularly interesting from many points of view. Amongst others, firstly, because the microscopical examination of the tumour bears out the diagnosis of its benign nature originally; secondly, the malignant element developed in the neoplasm itself; thirdly, there has been no recurrence in the throat, but the glands have become affected from the tumour. It is perhaps right to add, that the examination of the tumour by Dr. Dalziel was made and the diagnosis given before he learned anything about the history of the case.

Dr. Dalziel gave an account of the histological characters of the tumour, and showed a series of microscopic sections. The tumour appeared to be for the most part a simple papilloma, indicated by the regularity in the arrangement of its epithelial covering, the prickle cells being extremely beautiful, and the large cells of the thin corneal layer well marked. The epithelial elements bore the usual arrangements to the finger-like processes of the fibro-cellular framework, in which latter, however, were numerous groups of epithelial cells without definite arrangement, and unconnected with the surface epithelium. Many of these epithelial cells were of large size, with well marked nucleus and nucleolus, and in places were solitary, occupying what seemed to be a distended lymph space. From these characteristics the tumour seemed to be a simple papilloma, with a malignant development in its interior of the nature of epithelioma of rapid growth.

Dr. Knox said that, as regards the simple removal of this tumour by snaring, he would be inclined to question if this mode was sufficient to remove it entirely, even if the glands had not been previously involved. Granting the local origin of the tumour, the operation would require to be a much wider one than simple removal of the pedicle. With such a rapidly growing malignant mass in the body of the tumour, we can hardly wonder that epithelial elements were transported to the glands. He thought that given a tumour that is genuinely malignant, or where there is a reasonable suspicion of malignancy, an operation of greater severity than mere snaring is needed; but after the glands are affected, it is not of much importance what operation is employed, for the operation is usually unsuccessful.

Dr. Newman said that it had been the ordinary practice for

laryngologists to remove portions of growths for the purpose of diagnosis, not only of innocent growths, but also malignant ones. Now, this practice is a very erroneous one. He had learned this question for himself. He still believed that a practice of that kind should be followed before any radical operation is performed; but after you have confirmed your diagnosis, the radical operation should be performed at once. It should be no partial operation, because by doing so infection takes place within a very short time. He had a case in his mind, an old man who had a tumour limited to the cavity of the larynx, and where he removed a portion for diagnostic purposes, but before doing so he asked if he would be allowed to operate at once. This was agreed to, but next day when he (Dr. Newman) wished to operate the patient asked it to be postponed, evidently shirking the operation, and in ten days the lymphatic glands were involved. He did not do the radical operation, but it taught him not to interfere with laryngeal growths unless prepared to operate immediately—the same day or the next. Dr. Macintyre's case is different, and appears to justify what he did. He saw the growth, and it appeared to him very like a benign growth, but at same time it teaches the lesson that you should not interfere with them by the use of forceps or snares in any case where the tumour is cancerous.

Dr. Rutherford asked to what extent was it usual for simple tumours of the larynx to involve the glands, and whether the enlargement of the glands in this case did not show that it was malignant, as there was no inflammatory process taking place in the tumour itself?

Dr. Stirton thought from the history of this case that the larynx was not the original centre of the disease. Where it was he could not say. It had simply extended to the larynx from some other infecting centre.

Dr. Renton would ask Dr. Macintyre if he had removed any similar tumours from the larynx where there has been no glandular enlargement, or only slight, and where the patient has remained free from the disease for a time; and also with reference to what Dr. Newman says—it is a very important point, the non-interference—if you can be absolutely certain that they are malignant? But we must have some more distinct rule whether a tumour is malignant or not, or how are we to confirm our diagnosis?

Dr. James A. Adams asked if you ever have infection of the glands in a benign tumour where there is no irritation?

Dr. Macintyre said that he regretted the patient had been

so long in coming under observation, as if earlier he might have done him some good. He agreed with Dr. Newman as regards removal of portions of tumour. The moment you take out a piece and find malignant disease you should immediately do the radical operation. But in my case we had a tumour in which we could find no evidence of malignancy. If the enlargement of the glands of the neck had been absent, there would have been no doubt as to its simple nature. This was a tumour that could be removed entirely and easily. The diagnosis before removal was exactly what it has turned out to be pathologically. With regard to Dr. Rutherford's question, he would say that the presence of enlarged glands is not sufficient to diagnose malignancy. There was a considerable amount of inflammatory effusion in the larynx and surrounding parts, which would justify the statement that the glands were enlarged from neighbouring irritation. At the time of operation the glands were not large, but six weeks afterwards they were of the size of small apples.

Dr. Lindsay would like to know when this tumour began to grow, and secondly, how recent was the development of malignancy, because we know as a fact that during the last six months he has been losing flesh, showing that there has been a good deal of disturbance of the system.

Prof. McCall Anderson said that probably the mediastinum was the first centre of disease. He had a case of sciatica for which there was no evident cause, but he thought it might be due to something in the pelvis, and a short time after a tumour developed in the pelvis. He therefore thought that in this case the original centre would be in the mediastinum.

Dr. Dalziel did not agree with the idea that the mediastinum was the original seat of the malignancy in this case, as it would imply that the malignant elements travelled against the lymph stream.

III.—TWO CASES OF BRAIN DISEASE.

BY DR. GEORGE BUCHAN.

Dr. Buchan exhibited a specimen of abscess of cerebellum, and gave a history of the case, and also a history of a case of endo-hydrocephalus. (See p. 87.)

Mr. H. E. Clark asked *Dr. Buchan* if he had tried percussion of the skull in these cases, as he thought something might have been elicited. It has been thought possible by recent investigations to diagnose the presence of fluid. Certainly we

ought to be able to get at effusion into the cerebellum. In distention of the ventricles he thought we ought to be able to do something in the way of aspirating them. This effusion into the ventricles was possibly due to some interference with the outflow of lymph caused by the filling up of the orifice of Majendie.

Dr. Robertson said as regards the first case the symptoms indicated disease of cerebellum. The question is how this abscess should have arisen. There is no history of disease or injury to the head. The staggering gait was so extreme in this case as to suggest that the disease affected the middle peduncle of the cerebellum. With regard to the second case, it is interesting as showing how careful we should be in arriving at conclusions. The symptoms rather suggested tumour, but *post-mortem* no tumour at all is found, but the evidences of some inflammatory action about the choroid plexus giving rise to serous effusion in these ventricles. The point is worth following out, whether we could diagnose it by percussion of the skull. It was not tested in this case, so nothing can be said about it.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

SESSION 1888-89.

EXTRA MEETING I.—17TH DECEMBER, 1888.

The President, PROFESSOR GAIRDNER, in the Chair.

RARE AND INTERESTING SPECIMENS OF SKIN DISEASE.

THIS meeting was the first of two special meetings which had been arranged for the exhibition of rare and interesting specimens of skin disease.

I.—SYMMETRICAL GANGRENE OF THE EXTREMITIES COMPLICATING SCLERODERMA.

BY DR. FINLAYSON.

The hand now shown, from the Museum of the Glasgow Western Infirmary, presented black gangrene of the fingers. It was removed after death in May, 1882, from a man affected

with pretty general scleroderma, who was shown to the society on 11th October, 1881. The case is described in detail in the *Medical Chronicle*, vol. i, p. 315 (Manchester, 1885). Since this case was published, Dr. Barlow, in adding notes to his translation of Raynaud's papers (published by the New Sydenham Society—*Selected Monographs*—Lond., 1888), has brought forward a case with a similar combination, but in the reverse order—the gangrene first, and the scleroderma after. The specimen had a special interest in proving a relationship between two rare diseases, long suspected to exist, but never apparently before so clearly demonstrated.

II.—CASES SHOWN BY PROFESSOR M'CALL ANDERSON.

1. Professor M'Call Anderson first showed a case of **MOLLUSCUM CONTAGIOSUM** in a boy, aged $4\frac{1}{2}$ years.

The peculiarity of this case was, that the molluscous growths were situated on the front of the chest and abdomen, none being present upon the face. The first tumour was noticed growing upon the areola of the left nipple three and a half months previous, and by date of the meeting there were in all thirty or forty tumours.

Microscopical specimens of some of the growths were shown.

2. The next case shown by Dr. Anderson was that of a young lady, who had suffered for twenty-five years from an **ERUPTION** upon the lower half of the right forearm and back of the hand, in the area of **DISTRIBUTION OF THE ULNAR NERVE**.

Judging from the appearance and history of the eruption, he considered it to be of the nature of scrofuloderma.

3. A man, affected with extensive **ULCERATION OF THE SKIN OVER THE CHIN AND PUBIS**, was also brought forward.

The diagnosis formed by him, that it was of a syphilitic nature, was proved by the marked benefit which followed the subsequent administration of the iodide of starch, combined with suitable local applications.

4. Dr. Anderson's fourth case was that of a boy, aged 10, who was the subject of the very rare skin disease—**XERODERMA PIGMENTOSUM**.

The history of the disease is as follows:—At the age of two a number of sunspots, or freckles, appeared upon the skin of his face and neck. These for several years all but entirely disappeared in the winter, and returned each summer with greater intensity than formerly. During the last few years his face and neck have been permanently of a dark mottled brown

appearance, which during the summer months has approached a black tint.

The skin of the hands, forearms, feet, and to a less extent the legs, has been passing through changes identical with those on the face.

Latterly, however, small reddish and white cicatricial spots have appeared upon the skin of the face, and several of these have formed warty looking nodules, a few of which have ulcerated, and now appear as crusted sores of the size of a pea. So far as can be ascertained from his parents, the eruption was not congenital. It has never been itchy, and cutaneous sensation has not been impaired. With regard to family history, both his father and mother are alive and healthy. He is one of a family of two. His sister suffered from an affection evidently identical with his own, and died at nine, of some chest disease, the exact nature of which cannot be ascertained.

The main points in the present condition of the case, taken up by Dr. Anderson, were:—1, the otherwise healthy state of the patient; 2, the presence of the pigmentation spots; 3, the groups of dilated capillary blood-vessels, or telangiectasis; 4, the cicatricial or atrophic spots; and 5, the nodules in the skin.

As shown by microscopical sections, the little tumours in this instance are of an epitheliomatous nature, and the characteristic laminated capsules are very evident in all the specimens.

III.—LINEAR ERUPTION IN THE COURSE OF THE SCIATIC NERVE.

BY DR. SHEARAR, PAISLEY.

There was shown a boy of 17, with a linear eruption extending continuously from the left buttock to the base of the left little toe. It first appeared nearly 6 years ago, and has been fully established for over 4 years. It follows with considerable fidelity the courses of the small sciatic and short saphenous nerves. It has completely resisted treatment, persisted in for over a year, first in the Paisley Infirmary and then in the Skin Wards of the Western Infirmary, Glasgow. It was shown to a meeting of the Society in the end of 1884, and published along with a photographic plate in the February number of the *Glasgow Medical Journal* for 1885. Dr. M'Call Anderson and Dr. Jamieson, both looked upon this case as one of scrofuloderma, and the latter remarked that he knew of no linear eruption of this disease on record.

IV.—CASE OF GOUT WITH DEPOSITS IN THE SKIN.

BY PROFESSOR GAIRDNER.

A case of chronic gout was shown, of more than 20 years' standing, and with considerable deformity of the usual kind, especially in the hands. The peculiarity of the case, however, most deserving of attention, was the very numerous and considerable tophaceous deposits not in the joints, but in, and immediately below the skin, both of the upper and lower extremities. In the latter, the existence of points of ulceration had allowed of the escape of the white matter forming these deposits in such quantity as to leave no doubt at all of their character. Gouty deposits had also taken place in the lobes of the ears, which were typical instances of the gouty ear as described by Garrod. The patient, a man of 58, formerly employed in the inland revenue department, and tolerably familiar (though an Englishman) with whisky, which he had consumed in preference to beer or wine, had had a great many separate attacks of gout in the extremities, of various degrees of severity, and latterly had become subject to albuminuria. He had been sent to Dr. Gairdner by Dr. Grainger Stewart, who had exhibited him to the Medico-Chirurgical Society of Edinburgh; and he was also well known in the London hospitals, having been sent by Sir Dyce Duckworth to Edinburgh from St. Bartholomew's. There is a reference to this case in the last edition, just published, of Hilton Fagge's book, edited by Dr. Pye Smith.

V.—CASES SHOWN BY DR. J. LINDSAY STEVEN.

1. A case of slight, but quite distinct ICHTHYOSIS, associated with BRONCHIAL ASTHMA, from the Dispensary of the Glasgow Royal Infirmary.

2. A case of recurrent HERPES ZOSTER in the region of distribution of the SECOND DIVISION OF THE FIFTH NERVE. The patient, from the Glasgow Sick Children's Hospital Dispensary, was a girl aged 7, and the eruption had made its appearance every month or two months for a period of 5 years, being preceded for a day or two by attacks of neuralgic pain. The eruption shown at the meeting was very extensive, involving a large portion of the right cheek. Since the date of the meeting Dr. Steven had seen the patient again about a month afterwards, when a much smaller, but quite distinct patch of herpes zoster had made its appearance in the same situation.

Dr. Allan Jamieson remarked upon the great rarity of this condition, and said that so far as he knew, only two similar cases had been recorded—by Kaposi and Hardaway.

VI.—DR. GEO. S. MIDDLETON showed a patient suffering from MOLLUSCUM. FIBROSUM, with very numerous sessile and pedunculated tumours over the head, trunk, and limbs.

VII.—DRAWINGS OF RARE CASES.

BY DR. ALLAN JAMIESON, Edinburgh.

Dr. Allan Jamieson, of Edinburgh, who was present by invitation, exhibited drawings of some rare cases:—

1. Lichen planus, lichen verrucosus, and lichen pilaris on the leg of a woman aged 37.

2. Varicella gangrænosa on the back of a child aged 1 year and 9 months, showing vesicles, pustules, and the punched out ulcers, which were afterwards followed by thin scars.

3. Ichthyosis plantaris in a man aged 35, whose father had a similar affection. The horny growths had reached a thickness of nearly half an inch.

4. Paraffin ichthyosis on the arm of a man aged 50, employed in an oil work at Bathgate. The complaint began as a comedo, this enlarged, opened, and from the surface exposed a horn grew; when this fell off, the part took on an epitheliomatous change.

5. Lupus exhibiting the form described by Mr. Jonathan Hutchinson as eczema lupus, symmetrical patches on the neck, shoulders, and arm of a boy aged 6 years, which combined the characters of eczema and lupus, and left thin smooth scars.

6. Tinea tonsurans vesiculosa of hand, in which the margin was distinctly vesicular, the centre crusted, and the parasite abundant.

7. Intense pigmentation as a result of scratching in a most aggravated case of pediculosis corporis.

Dr. Allan Jamieson said that he had had the honour of showing at the British Medical Association Meeting in Glasgow two cases which he thought were examples of *xeroderma pigmentosum*. But they differed in some respects from the typical case shown to-night by Professor Anderson, particularly in the vesiculation and consequent scarring, and in the fact that the pigmentation was not primary. He thought the variation from the characteristic symptoms in his cases might have been due to the climate, but Dr. Anderson's case showed

that this was not so, because it corresponded to the typical accounts. Dr. Jamieson had also recently seen a case of *recurrent herpes zoster* similar to that shown by Dr. Lindsay Steven. He had only been able to find two recorded cases of this kind. Kaposi recorded one which had recurred fifteen times, and a similar case had been reported by Hardaway. He thought that Dr. Anderson and Dr. Shearar's cases of eruptions in the course of nerves were examples of *lupus verrucosus*.

Dr. Anderson thought with regard to the term *lupus verrucosus* that he and Dr. Jamieson were playing upon words, and that they were quite agreed as to the real nature of the cases. Recurrence of herpes on the chin and prepuce was quite common, but he was quite of opinion that the case of herpes shown by Dr. Steven was rare.

MEETING IV.—MONDAY, 14TH JANUARY, 1889.

The President, PROFESSOR GAIRDNER, in the Chair.

I.—REPORT OF THE COMMITTEE APPOINTED TO EXAMINE THE SECTIONS OF A CANCER OF THE TONGUE SHOWN AT THE NOVEMBER MEETING OF THE SOCIETY, BY MR. HENRY RUTHERFURD, M.B.

Mr. Rutherford read the Committee's report as follows:—

With regard to the sections of a cancer of the tongue, shown at the November meeting, the Committee appointed to examine them has to report as follows:—

1. That although the epithelium at the upper (dorsal) margin of the ulcer seems to be undermined by the growth, and extends over it as a thinned layer without any appearance of hypertrophy or tendency to penetrate between the papillæ, yet towards the other side of the ulcer (that nearest the floor of the mouth), bulky columns of cells are seen extending inwards towards the deeper parts.

2. That although nowhere are nests of horny squamous cells to be seen, yet the cells of the columns referred to preserve for some distance from the surface their large well defined bodies, giving together a tessellated appearance in section, and that one or two concentrically arranged groups of cells are seen, large, clear, and more or less flattened without yet having lost their nuclei.

3. That in the deeper parts epithelial nuclei lie close together in cells—that is, which are smaller and less sharply defined than those nearer the surface, and forming masses rather than groups; that while these sometimes extend as club-shaped processes from the main columns, they also occur completely isolated in the plane of the section, separated by the tissues of the part, by spindle-shaped and round nuclei; nowhere by wavy fibrous tissue.

We are therefore of opinion that the tumour is to be described as an infiltrating or penetrating epithelioma, and we think it worthy of note as bearing on the question of epithelial types in cancer, that in this case, a consideration of the form and arrangement of the cells in the deeper parts only, would not have warranted any affirmation, as to their surface origin.

II.—SPECIMEN OF CONSIDERABLE ATROPHY OF THE RIGHT CEREBRAL HEMISPHERE, FROM A CASE OF EPILEPSY WHERE DEATH FOLLOWED A SEVERE ATTACK OF THE STATUS EPILEPTICUS.

BY DONALD FRASER, M.D., Paisley. (See page 83.)

Dr. Finlayson was rather interested in this case in connection with one which had anomalous symptoms, in which all the length he could go in the diagnosis during life was that there was apparently disease of the cerebellum, probably of the nature of a tumour. At the *post-mortem* they were astonished to find nothing more than a considerable atrophy of the cerebellum, with effusion into the ventricles; he hoped to be able to bring up the case at a future meeting.

III.—PULSATING SARCOMA REMOVED FROM THE SUBCUTANEOUS TISSUE IN THE GLUTEAL REGION OF A WOMAN.

BY HECTOR C. CAMERON, M.D.

Dr. Cameron showed the specimen, which he had excised from a woman aged 60. The tumour, of 20 years' duration, was distinctly pulsatile, and shortly before the operation serious bleeding had taken place from a small ulcerated point, which was only controlled by continual digital pressure. This was why the operation was done; the case did well; and, after removal, the growth was found to be a small spindle-celled sarcoma.

Mr. Maylard said that the tumour even after removal presented very much the appearance of a lipoma. Indeed, so like was it to this kind of growth that it was believed to be such until sections were examined microscopically. There was then, however, no mistaking its real character. It was a small spindle-celled sarcoma, excessively vascular. The sections will be seen to show numerous blood channels, varying in size: and to the great number of these, rather than to the large size of a few, would seem to exist the reason for the pulsation in the growth felt during life.

IV.—VASCULAR SARCOMA (FUNGUS HÆMATODES) REMOVED WITH THE FOREARM FROM A MALE PATIENT.

BY PROFESSOR GEORGE BUCHANAN. (See page 80).

Mr. Maylard said that histologically the tumour was a large spindle-celled sarcoma, and contrasted in an interesting way with the tumour just shown by Dr. Cameron. In the latter specimen the cells were small and the rate of growth very slow, the tumour having existed for many years. In the former the cells were very large and the rate of growth extremely rapid, the time since its commencement being only a few months.

In dissecting the tumour, it was found to be confined to the soft tissues, but approaching very closely to the bones of the forearm. It was excessively soft, being of the consistency of brain matter. A fresh scraping of the tumour showed large cells, resembling almost epithelial cells, so that one was led to believe the tumour to be carcinomatous in character. Sections of the growth, however, after hardening revealed its true nature.

The President had a very vivid impression of a case which occurred long ago, and which had an external similarity to this in which a so-called fungus hæmatodes had been cut away from one of the limbs, and where after death he had the opportunity of examining the internal organs. He found very numerous centres of secondary formation in various parts of the body—lungs, pleuræ, glands, vertebræ, &c., all of which presented the same spindle cells as had been found in the external tumour, and also the same soft and apparently cancerous character to the naked eye. At the time he regarded it as a case allied to encephaloid cancer, but distinguished from ordinary encephaloid by the characters of the cell growth, which was exactly the same in all the organs and parts affected.

V.—CASE OF TRACHEOTOMY, WITH ULCERATION OF THE TUBE THROUGH THE TRACHEA INTO THE INNOMINATE ARTERY.

BY A. E. MAYLARD, B.S.

Mr. Maylard showed the parts removed *post-mortem* from a case in which tracheotomy was performed for pressure on the trachea by a spinal abscess, and where death ensued subsequently from ulceration of the tracheotomy canula through the trachea into the innominate artery.

The abscess was situated opposite the lower two cervical and upper two dorsal vertebræ, and in its extension forwards had pressed the trachea and œsophagus against the upper part of the sternum, this proving the cause of the obstructive symptoms for which the operation was performed.

(A full account of this case is to be found in the *Annals of Surgery*, 1889.)

Dr. Cameron said that *Mr. Maylard* expressed surprise that no premonitory symptoms should have been present until the first hæmorrhage. We should remember, however, that where a child takes a specific fever, any ulceration which may be present goes on with redoubled energy. He referred to a case of hip joint disease which, originally incipient, had gone on with great rapidity to destructive changes during typhoid fever, so that a dislocation of the hip was produced without any undue violence while using the bed pan.

Dr. Finlayson said that lately he had under his notice the case of a child admitted a few months ago to the Children's Hospital in a state of great dyspnœa, in which *Dr. Cameron* performed tracheotomy at the time. *Dr. Finlayson* did not see patient till after the operation, after which it did well enough. Difficulty arose as to the nature of the cause of the dyspnœa, because there were no obvious diphtheritic patches, although afterwards it put up shreddy masses. By and bye it developed a troublesome cough, which he attributed to the pressure of the tube. Then the tube was removed as the child was doing well, shortly after which the cough proved to be due to well marked hooping-cough. Hooping-cough was also discovered in the family.

Dr. Eben. Duncan referred to the connection of the ulceration in this case with the occurrence of a specific disease, and related a case where a Hodge's pessary, during an attack of typhoid fever, caused a vesico-vaginal fistula. He next referred to the frequent occurrence of scarlatina in the surgical wards of our hospitals, and he did not approve of the visitation of Belvidere by large numbers of surgical students, who might bring the specific germs of infectious diseases to these wards,

where the open surfaces of wounds made the patients specially liable to infection.

Professor George Buchanan referred at some length to spasm of the whole respiratory system occurring in cases of tracheotomy where the tube was not obstructed. This was apt to be confused with laryngeal spasm.

Dr. Joseph Coats referred to a specimen in the Western Infirmary Museum, in which the tuberculosis had extended within the spinal canal and infected the dura mater, which pressed upon the cord. With regard to the absence of symptoms of ulceration before the hæmorrhage, he thought that the trachea was very different from the larynx in regard to its sensitiveness; foreign bodies on being lodged in the bronchi did not cause spasm or any very great sensation of uneasiness.

Dr. Macphail, Whifflet, said that tracheotomy had been seriously proposed for whooping-cough. He thought that scarlet fever made the difference between ulceration and no ulceration.

Dr. Renton asked if there was anything to be done to prevent ulceration, by altering the shape or the length of the tube.

Dr. Lindsay Steven wished to know whether, supposing it could have been diagnosed, the abscess cavity could have been emptied. It seemed to him to be a comparatively large abscess to be found in that region of the body in a child; and he had not quite gathered from *Mr. Maylard's* remarks whether the obstruction of the trachea had been caused by the pressure of the abscess, or by its being drawn back into the angle produced by the curvature of the spine.

Mr. Maylard, in his reply, said he recognised the force of *Dr. Cameron's* suggestion as regards the rapidity with which ulceration might take place in tissues suffering from the effects of a specific fever; but he could hardly see how that should in any way affect the absence of symptoms of ulceration. He was not quite prepared to go the length of *Dr. Macphail's* suggestion that no ulceration would have taken place had there been no fever attack. In reply to *Dr. Steven*, *Mr. Maylard* said the same questions had arisen in his own mind, and his feeling was that had there been evidence of an abscess, it could have been reached from the side of the neck behind. The obstruction of the trachea was solely due to the pressure of the abscess. In answer to *Dr. Renton*, *Mr. Maylard* said that where a tube had to be used for any length of time, it was wise to vary its length if possible, and also to supply in the place of a rigid tube a soft rubber one. Neither, however, of these variations could be carried out in the case under discussion.

ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

INSANITY.

By DR. R. S. STEWART.

Urethane as a Hypnotic in the Insane. By Adam (*Annales Médico-Psychologiques*, September, 1888).—The writer has given this hypnotic to 30 patients in doses varying from 1 to 5 grammes, and, in all, nearly 400 times. The maximum dose was given only in cases of extreme excitement, and in these the effect was not constant, and only slight. In cases of medium intensity, however, it produces a prolonged hypnotic effect without any disagreeable after-effects. In only two cases, one of anxious melancholia and one of mania, its use was completely unsuccessful. In the case of general paralysis of which there were six cases, the results were very similar to those in other forms of insanity. The sleep induced is calm, the drug innocuous even when given in doses of 5 grammes for several days or 3 grammes for several weeks, and its administration is easy.

Epileptic Seizures with Consciousness. By Ball (*Annales Médico-Psychologiques*, September, 1888).—As a general rule, the acts committed by epileptics during fits are unconscious and automatic, but in the case here recorded, that of a woman, in addition to the ordinary seizures, in which acts done were not remembered, there were fits in which neither consciousness nor remembrance of acts committed was abolished. She knew very well what she did, but had not the power to prevent herself committing the acts. The will being absolutely dominated by the epileptic impulse, the individual must be considered irresponsible despite the retention of consciousness and memory.

Folie à Quatre. By Forel (*Annales Médico-Psychologiques*, September, 1888).—In cases of induced insanity, it is rare to find as many as four persons affected. In this case, related at the annual meeting of the alienists of Switzerland, all the members of a family, three sisters and one brother, all more or less feeble of mind, were affected with a form of insanity identical in all four. The fixed delusion was induced and directed by Anna, the youngest sister, who was possessed of more energy and intelligence than the others. This sister, going to the station one day, overheard some fragments of conversation, from which she concluded that there was to be a war between England and Russia, and that in consequence there would be no more work for them to do. She related this at home, and from that moment this idea became fixed and ruling in all four. When offered work, Anna replied, and the others repeated, that on account of the war there was no work. They lived in an isolated house in a deplorable state of filth, and had so barricaded themselves that a regular siege was necessary in order to effect their removal to the asylum. On admission they all sat closely in a row, in the same attitude and wearing the same expression. Anna acted as chief and spokesman, the others repeating her phrases in the same tone. Two were discharged to their home, but their mental condition becoming aggravated, they had to be brought back, and, at the date of the report, the mental condition of all four had undergone no change. Their mother and grandmother had been insane, and their father peculiar.

Paraldehyde. By Keniston (*Amer. Journ. of Insanity*, October, 1888).—The writer has given this drug 546 times, with the following results:—In 407 instances sleep of from 4 to 8 hours' duration was obtained; in 39 instances

sleep of not more than 3 hours followed, and the number of complete failures was 10. Taking the total number of administrations, the average amount of sleep produced was 5.10 hours. The average dose was 1 drachm, the maximum in one night being 3 drachms, given in two doses about 3 hours apart. In none of the cases was any irritation of the mouth, throat, or stomach observed. The appetite was unimpaired. There was no constipation or diarrhoea, and no depressing effects or unpleasant sequelæ of any sort were noted. It is a pure hypnotic and induces torpor without any preliminary excitement or subsequent mental or nervous irritability. It strengthens and slows the heart's action and has a slight diuretic effect, but no appreciable influence on the pupils. Its sedative effect is manifested in from 15 to 30 minutes, and the sleep is natural and refreshing. It has been given with benefit to noisy and violent epileptics. Its use is quite safe in general paralysis, in old people with atheromatous changes, in cases of cardiac disease and advanced phthisis, and has been found very serviceable in the insomnia of gout, acute or chronic, but its anodyne effect is very slight. It is recommended to be given in the following formula :—

R.—Paraldehyde—

Mucil. acaciæ aa,	.	.	.	.	.	.	.	3i.
Aquam ad.,	.	.	.	.	.	.	.	3ij M.

and in the form of suppositories, which contain 15 grains, the drug being first solidified by admixture in a water bath with 25 per cent of paraffin and afterwards introduced into the suppository mould.

Psychiatry as a Subject of Medical Examination (*Annales Médico-Physiologiques*, September, 1888).—At the last annual meeting of the directing commission of Swiss physicians, it was decided to recommend that psychiatry should form one of the subjects of oral examination, and this recommendation has been adopted by the Federal Council. In Russia also, psychology is one of the examination subjects.

The Application of the Sphygmograph to the Study of Mental Alienation. By Burckhardt (*Annales Médico-Physiologiques*, September, 1888).—The writer claims that valuable aids to diagnosis and treatment are afforded by the use of this instrument. Two illustrations are given. In one case of circular insanity occurring at menstrual periods, the attacks of excitement were averted by subcutaneous injections of strychnine, given whenever, by means of the sphygmograph, a change in the arterial pressure was observed, a sign which had been found to indicate returning mania. In another case of the same variety of insanity, occurring bimensually, the attacks of excitement had, from the same indication and by the same means, been for a year much ameliorated.

Imbecility with Insanity. By Hurd (*American Journal of Insanity*, October, 1888).—Idiocy is defined by this writer as a mental defect depending upon malnutrition, or disease of the nervous centres, occurring before birth, or before the evolution of the mental faculties in childhood. Imbecility is an arrest of mental development at a subsequent period prior to the full maturity of the mental faculties.

Four grades of imbecility are distinguished, and the following conclusions formulated :—

1. As a rule the lowest grade of imbeciles are irritable and impulsive, but they do not have delusions, nor can they properly be considered insane.

2. In the next higher grade of imbecility an actual insanity is developed, which assumes the form of impulsive acts, morbid propensities, and even acts of suicidal or homicidal intent, without delusions and without sustained mental disturbance.

3. A still higher grade exists in which attacks of acute and recurrent mania, simple melancholia, and melancholia with systematised delusions may be

present. These attacks run about the same course as in persons who possess a normal brain.

4. In cases of moral insanity, so called, or of imbecility with moral perversion, there is always present from the age of puberty a well marked mental deficiency of a progressive character which goes on to confirmed dementia. The apparent moral defect is in reality a mental one.

4. The determining causes of the development of insanity among imbeciles are generally physiological epochs or crises, or vicious practices or indulgences acting upon a neurotic organisation which has been directly inherited from an insane or dissolute parent.

Folie à Trois. By Pages (*Annales Médico-Psychologiques*, November, 1888).—In this instance a mother and two daughters became the subjects of a form of insanity, identical in form in all three. It originated in the youngest daughter, who was at the same time the most intelligent and most insane, and she ultimately succeeded in impressing her deluded ideas on her mother and sister. It was characterised at first by ideas of persecution, to which were afterwards added delusions of grandeur and exaltation. The father of the daughters was a habitual drunkard, lazy and cranky, and addicted to sexual excesses.

General Paralysis in Imbeciles. By Arnaud (*Annales Médico-Psychologiques*, November, 1888).—Two instances of the development, but rarely observed, of general paralysis in imbeciles are here given. The first case is that of a knacker, whose mother was a heavy drinker and debauched. He never attended school regularly, was inapt at learning, and incapable of following a trade. His head was small and asymmetrical, and the palate vaulted. At 43 he got a severe blow on the head, and shortly afterwards he manifested all the symptoms of general paralysis, loss of memory, incoherent ideas of satisfaction, embarrassment of speech, and pupillary inequality.

In Case 2, a dissolute and intemperate imbecile woman, there was also asymmetric microcephalus and vaulting of the palate. Symptoms of general paralysis supervened at the age of 30, and were very characteristic, with the exception that there was an entire absence of delusions.

In both cases autopsy revealed pathological alterations, characteristic both of general paralysis and of imbecility.

SURGERY.

ABSTRACTS OF VARIOUS PAPERS ON HERNIA.

By DONALD MACPHAIL, M.D.

Transplantation of Periosteum in the Radical Cure of Hernia.—Dr. W. G. Zesas, of Bern (*Centralbl. f. Chir.*, 18th February, 1888), referring to the liability of hernia operated upon to recur in course of time owing to imperfect closure of the rings, or to deficient resisting power of the "new tissue" opposed to the descent of the hernia, quotes a saying of Billroth, that "could a tissue of the firmness and density of fascia or tendon be artificially produced, then the secret of the radical cure of hernia would be found." Zesas attempted—in an operation performed on the 4th May, 1887, on a large hernia already twice operated upon, and each time recurrent soon after the operation—to meet this indication, by stitching over the sutured rings and to the surrounding tissues a piece of fresh periosteum from the tibia of a rabbit, in the hope that it would cause the formation of dense cicatricial tissue, if not of bone. The operation was so far successful that the wound healed very rapidly by first intention, and the tissues appeared six weeks afterwards to be unusually firm and dense. Those who examined the case could not, however, satisfy themselves that bone had been formed at that time, and there is no later report of the condition of the case.

A Critical Study of Modern Methods for the Radical Cure of Inguinal and Crural Hernia. By M. H. Delagémère (*Gaz. des Hôpitaux*, 1888, No. 12).—The author discusses only two of the older methods:—1, Subcutaneous injection of various fluids into the tissues around the sac or rings (Luton, Schwalbe, Heaton), or into the sac itself (Keetley), which he rejects as dangerous; and 2, Woods' extra-peritoneal invagination of the sac and stitching of the rings and canal, an operation much modified by Agnew, Chisholm, and Spanton, which he considers to be too difficult and uncertain in results.

A good radical operation, he holds, should fulfil the following conditions:—

1. Obliteration of the sac and removal of all conditions which might favour the production of a new hernia.
2. Closure of the rings and all gaps through which such conditions might act.
3. The greatest possible diminution of intra-abdominal pressure.
4. Removal of the unfavourable influence of the omentum.
5. Correction of the usual weakness of the parietes.

With these indications in view he reviews eleven modern methods and finds that they are approximately met by only four. Those of Schede, Julliard, Risel, Czerny, Reverdin, Socin, and Rabagliati leave much to be desired, chiefly in regard to permanence of result. Those of Banks, Ball, Macewen, and Lucas-Championnière are more or less efficient. Banks opens the sac and ligatures it as high up as possible, cuts it off, and stitches the sides of the canal and rings together over it with silver wire, which is left in permanently. Ball twists the isolated sac, short of tearing it, and then stitches it into the canal. (Macewen's method need not be described here.) Lucas-Championnière aims at obliterating not only the sac and neck of the sac, but also the infundibular depression on the inner surface of the parietes. This is done by drawing down the neck as far as possible, dividing it, and stitching it by "chain stitch" as far up as possible. The canal is then closed by similar stitches, and over it the skin. It is this last method which the author prefers. Banks' and Ball's methods he thinks not secure enough, Macewen's too difficult. (*Centralbl. f. Chir.*, 4th August, 1888.)

Discussion on the Cure of Congenital Inguinal Hernia (*Bull. et mém. de la Soc. de Chir. de Paris*, t. xiii, p. 641).—Special difficulty in the radical treatment of congenital inguinal hernia is caused by the intimate relationship of the cord with the sac. As to the propriety of removing the testicle to avoid that difficulty opinions differ. Richelot, opening the discussion, declared against castration. The necessary condition for success is removal of the sac, which is always possible provided there are no adhesions between the sac and bowel. When the sac is divided above the testicle and caught up with forceps, it can be dissected up, partly with blunt, partly with sharp instruments, from below upwards as far as the internal ring, then ligatured and cut off. When this is carefully done, the constituents of the cord can be easily avoided. Castration is necessary only when the testicle is still within the canal and fixed there, and is unjustifiable when it is outside the canal, or can be easily drawn down outside it.

Among the surgeons present the greatest diversity of opinion as to the propriety of operating upon these cases prevailed. As representatives of extreme opinions, Lucas-Championnière on one side, and Berger and Le Fort on the other, may be mentioned. While the first would operate upon every person who has a hernia and suffers in any way from it (only excepting the very young or very old, and persons markedly cachectic), the latter would narrow their indications as much as possible. Berger founds on the experience of 10,000 cases, seen at the central bureau of a "truss society." In his experience the greater proportion of congenital inguinal herniæ, brought under treatment before the age of 15 years, are curable by a truss. Most of the cases seen in older patients will be found to have originated before the age of 15. In patients younger than 15, he holds a radical operation, except where there are complications,

to be inadvisable. Up to date, he estimates the mortality after radical operations (between 2 and 3 per cent) to be slightly greater than that of hernia in general. Besides, after such operation most have still to wear trusses, and about 30 per cent of the ruptures return. Finally, Berger would restrict operative treatment, apart from cases of strangulation, to the following classes of cases:—1, those in which a congenital hernia in spite of a truss still increases in size; 2, those in which a well fitting truss fails to keep the hernia up; 3, those in which the presence of ectopia testis prevents the application of a truss; and 4, those complicated by partially or completely irreducible omentum.

Lucas-Championnière sets no value on Berger's statistics. He admits that in a certain proportion of cases in children a cure, even a permanent cure, may be effected by wearing a truss for a time. He considers the permanent use of a truss as not only a clumsy method and expensive to the poor, on account of the necessity for frequent renewal, but also even harmful, as preventing desirable formation of new tissue as a buttress. Thus, he holds a radical operation to be a safer method of treatment than the use of a truss. Of 62 patients, including several complicated cases, on whom he has operated, he has not lost one, and including cases of Terrier's, Terrillon's, and Richelot's, he described a series of 140 cases operated upon without one death. The operation is admitted to be often very difficult. It is not one for the general practitioner to undertake, or any one who does not possess considerable operative dexterity, or does not practise the most careful methods of antisepsis. Deficiencies in the latter particular account for many at least of the unfavourable results quoted; in short, it is the operator and not the operation that should be condemned. After operation, Lucas-Championnière advises his patients to wear a bandage, but one that will not cause the slightest pressure upon the scar.

Le Fort agreed very closely with Berger, and added that the bad results complained of from the use of trusses were often owing to the instruments being badly chosen and badly fitted. The surgeon himself should see to this, even to constructing a model, if necessary, for each individual case. Generally speaking, every reducible hernia can be held back by some truss. He demurred to the statement that operation is a certain radical cure, for so many of the cases are so recent that it is still impossible to be assured that the hernia will not return.

Trélat thinks a radical operation justified in "every hernia which cannot be completely, permanently, and comfortably held up by a truss."—(*Centrabl. f. Chir.*, 25th August, 1888.)

Multiple Hernia: Operation.—J. Ssokolowski (*Chirurg. Westnik.*, September and October, 1888), operated upon three hernias, in an old woman, at one sitting. A right inguinal hernia, of 30 years' standing, so large as to reach the middle of the thigh, had been strangulated for one day. There also existed a left inguinal hernia, the size of a fist, of 25 years' duration. These were operated upon, and during the operation there was discovered a small strangulated crural hernia, which was also dealt with. The patient was wretchedly poor, aged 56, and the operation was performed in a hut so small and filthy that the anaesthetist collapsed at an early stage of the operation. Under careful antiseptic dressings the wounds healed well, though one of the inguinal hernias came down again in three months.—(*Centrabl. f. Chir.*, 17th March, 1888.)

A Modification of the Taxis for Strangulated Inguinal Hernia.—G. S. Perro (*Medizinskoje Obosrenje*, 1887, No. 15) has found the following simple modification of the taxis succeed when the ordinary method failed. Raise the pelvis by a pillow, and slightly flex and abduct the thigh. Grasp the scrotum with the left hand and draw it, without dragging upon the neck, upwards and outwards over the lower part of the abdomen. Then, by introducing the right forefinger into the canal and carefully pressing and

boring in the direction of the upper ramus of the pubis, the obstruction at the neck can sometimes be very easily overcome.—(*Centralbl. f. Chir.*, 24th March, 1888.)

Albuminuria in Cases of Strangulated Hernia.—Frank (*Berlin Klin. Wochenschr.*, 1887, No. 38), found albuminuria present in 24 out of 39 cases (61·5 per cent) of strangulated hernia observed in the Friedrichshain Hospital. Among 12 cases found amenable to taxis he found 1 of albuminuria (8·3 per cent); among 26 which had to be operated upon he found 22 (84·6 per cent). Among the cases operated upon were 13 in which the condition of the bowel justified its being returned within the abdominal cavity. Of these, 9 (69·2 per cent) had albuminuria. In the other 13 artificial anus had to be formed; all of these had albuminuria. The amount of albumen varied with the severity of the strangulation.

Age or sex had no influence upon this symptom. Albuminuria begins a short, but very variable, time after the occurrence of strangulation, increases with the severity of it, and culminates very shortly after its relief. The severity of the renal affection does not run parallel with any nutritional change produced in the intestinal tissues by the strangulation, nor does the presence of albuminuria seem to affect the latter unfavourably. After relief of the strangulation, the albuminuria disappears, sometimes very rapidly, even though the progress of the case otherwise may be unfavourable.

The amount of albumen is very variable. Microscopically, a few white blood corpuscles may be found, and only in very severe cases, casts.

The pathology of this form of albuminuria is as yet unknown, but its clinical bearings may sometimes be important. The presence of albuminuria might be a confirmatory symptom in a doubtful case, its disappearance a proof of strangulation being removed, or its persistence after operation might suggest that further interference might still be necessary.—(*Centralbl. f. Chir.*, 24th March, 1888.)

DISEASES OF THE EAR.

By DR. WALKER DOWNIE.

The Use of Lactic Acid in Chronic Suppurative Otitis. By Isidor Bermann, M.D., Washington. In old standing cases of otitis media Dr. Bermann has found lactic acid of great service. Even in cases where foul smelling discharge had been present for lengthened periods, and where various agents had been employed without benefit, the use of lactic acid seemed to bring about a healthy state of the parts rapidly. In order to prevent maceration of the epidermis with which the acid may come in contact, he recommends the protection of the external auditory meatus by a thin lining of paraffin applied while warm with a camel's hair pencil. A solution of lactic acid in water of the strength of 30 to 40 per cent may then be instilled and retained for from ten to twenty minutes. This application is repeated every second or third day, and when discharge has disappeared the acid may be dispensed with and finely powdered boracic acid insufflated, or, if the perforation be large, an artificial membrane may be inserted.—(*The Journal of the American Medical Association*, 11th August, 1888.)

Headaches from Overlooked Causes in the Nasopharynx and Ears. By H. Gamble, M.D., Chicago.—Of cases of "headache" which have been referred to Dr. Gamble, he considers several the result of nasopharyngeal and aural trouble, and these he describes as being divisible into four types. In the first we have circumscribed follicular tonsillitis or follicular angina as the cause. In the second there is enlargement of the pharyngeal tonsil in the form of adenoid vegetation. Headache is specially complained of where congestion, occasioned by a fresh "cold," occurs. In the third headache

is due to hypertrophy of the nasal mucous membrane, and usually affects those of a neurotic type. In the fourth class the headache is almost constant, and is dependent on diminished patency of the Eustachian tubes. This obstruction, with the subsequent reduction of intra-tympanic pressure, sometimes gives rise to persistent headaches, which, however, can be remedied by inflation of the middle ears.—(*The Journal of the American Medical Association*, 8th September, 1888.)

Case of Aural Vertigo relieved by Operation.—In the American Otological Society's meeting in July, Dr. C. H. Burnett, of Philadelphia, reported a case of aural vertigo relieved by operation.

Patient, middle aged woman, had suffered for six years from chronic nasopharyngeal catarrh, with similar condition of left middle ear. Complained of sense of fullness in that ear, and vertigo so severe as to make her seize on railing or lamp post. Under ether membrana tympani was removed and malleus as well; the ossicles had united into one continuous line, accounting for the sense of fullness and tension. Symptoms passed away immediately after operation.—(*Journal of the American Medical Association*, 28th July, 1888.)

Nystagmus in the course of Purulent Otitis Media.—Dr. Kipp, of Newark, gave notes of three cases where nystagmus appeared in the course of purulent inflammation of the middle ear. In one of them, during an acute exacerbation of the disease, swelling appeared over the mastoid. On pressing this swelling pus poured out of the canal, and at the same time there was a jerking of the head with horizontal nystagmus, the latter continuing for about ten minutes. These symptoms were repeated each time pressure was made over the mastoid.

In another case forcible syringing of sinus in mastoid (leading into the canal) led to similar nervous symptoms.—(*Journal of the American Medical Association*, 28th July, 1888.)

Some Forms of Aural Reflex Neurosis.—Dr. A. J. Brady, of Nose and Throat Department, Sydney Hospital, has an article in the October number of the *Australasian Medical Gazette* on some forms of aural reflex neurosis. He calls attention to the fact that the presence of foreign matter in the ear, such as wax or chronic discharges, may produce symptoms having their seat in parts remote from the ear. The commonest of such reflex symptoms are a peculiar spasmodic cough and nausea. He cites two cases, in the first of which severe cough was complained of, and, after careful examination, traced to the presence of some hardened wax. The removal of this cured the condition. The other case had also persistent wearing cough, due to chronic inflammation of the middle ear—the inflamed condition increasing the sensitiveness of the nerve filaments—the proper treatment of which put matters right.—(*Australasian Medical Gazette*, October, 1888.)

SKIN DISEASES.

By DR. A. NAPIER.

The British Journal of Dermatology (Nos. 1, 2, and 3. Edited by Malcolm Morris and H. G. Brooke).—We welcome the appearance of this the latest of the various journals devoted to specialties in Britain. It takes the place, now so long vacant, once occupied by Erasmus Wilson's Journal, and it shares with the *American Journal of Cutaneous and Venereal Diseases* the honour of being the only representatives of Dermatology printed in the English language. It is to be hoped that success will attend this venture. In these three numbers we find much interesting matter, including original papers by Hutchinson, Unna, Carafy, and others, and an excellent summary of recent literature in this department. In the last number the announcement is made that an arrangement has been entered into with the editor of the *Monatshefte*

f. prakt. Dermatologie, by which the original articles sent to either journal may be at once translated and published in the other. This will greatly increase the value of the journal to English readers, as it will render more accessible to them the original contents of one of the most enterprising of the Continental special publications.

In these three issues the original papers most worthy of note are these:—Case of Diabetes Mellitus, accompanied by a peculiar eruption, somewhat resembling xanthoma diabetorum, by Dr. T. Barlow; on Symmetrical Purple Congestion of the Skin, with induration, by Hutchinson; on Syphilitis and Eczema Seborrhoicum, by Unna.

Menthol in Pruritic Affections.—Menthol is recommended by Saalfeld, Berlin (*Deutsche Med. Wochenschrift*, No. 46, 1888), as exceedingly beneficial in cases of pruritis of various kinds. He prescribes it either as a wash or as a salve, the formulæ being:—

I. Menthol, 1·5–2·5 grammes (22–37 gr.)
Spirit vin. rect., 50·0 (3 1½.)

and

II. Menthol, 2·5 (37 gr.)
Ol. Olivarium, 7·5–10 (5ii–5iii.)
Lanolin ad, 50·0 (1½ oz.)

Both preparations have done him excellent service in urticaria, pruritus cutaneus, and pruritus senilis.

A case of intolerable itching consecutive to otherwise successfully treated scabies was perfectly cured by applications of the following ointment:—

Menthol, 2·5, 48 gr.
Bals. Peruv., 5·0, 96 gr.
Ungt. Wilson (Ung. Zn. benz.)
Lanolin, pur. aa ad, 50·0; aa ad, 2 oz.
N. f. ungt.

Menthol as a 10 to 15 per cent ointment proved likewise very valuable in chronic eczema, even in quite inveterate cases.

Cancer by Skin Grafts.—The following case, in which carcinomatous nodules were transplanted from one breast to the other by means of skin, possesses considerable interest both pathologically and therapeutically. Having determined that a case in which the breast had been previously removed for cancer was too far advanced to permit of a second operation, Hahn obtained the patient's leave to ascertain if it was possible to inoculate the skin over the second breast by pieces derived from the affected skin over the first. Numerous small cancerous nodules were on 9th April cut off as evenly as possible with grafting scissors, and transplanted by Reverdin's method on the sound breast, after the skin on the selected spot had been removed so as to leave an ulcer for its reception. On 1st May, the transplanted pieces had taken firm root, and the ulcer was completely covered with epidermis. On 19th May, at the edge of the pieces of skin some small projecting nodules appeared about the size of a millet seed; they gradually increased in dimensions, and by 26th June, had reached the size of a cherry stone. Four days later the patient died. On microscopic examination of sections of the transplanted skin, all of which gave a characteristic appearance, it was evident that the main mass of the tumours consisted of a well-developed connected tissue stroma, containing irregular masses of epithelial cells enclosed in it. These masses had clearly insinuated themselves into the healthy tissues, which were on all sides beginning to be invaded by the epithelial nests. The above related facts seem to clearly prove that carcinoma can under suitable conditions be inoculated upon healthy tissues; and the practical deduction to be drawn from this circumstance is that great care should be exercised during an operation to avoid taking up pieces of cancerous tissue in the forceps, and leaving them adherent to the edges of the wound, where they may afterwards find a permanent resting-place.—(*Centrblt. f. Chirurgie*, 1888, p. 728.)

Alopecia Areata.—Professor Leloir, of Lille, read, on the 26th of June last, at the Academy of Medicine of Paris, an important work on the subject of alopecia. Out of 142 cases which he has observed he has been enabled to carry out a satisfactory investigation in 92 instances. He has divided these 92 cases into three grand classes from an ætiologic and pathogenetic point of view. In the first class he has placed the observations in which he found no sign of contamination of the subject or of his environment, and where there existed, on the other hand, sufficiently characteristic nervous phenomena. To these he has given the name of *trophoneurotic alopecias*. He has found in a number of these cases the primary cause of the nervous troubles to be overcrowding in dwellings, and particularly the overcrowding of schools, decided moral emotions, prolonged grief, and traumatism of the head. He has frequently observed the co-existence of these losses of hair with a syphilis of several years' duration, and in one case the affection of the scalp preceded an attack of cerebral syphilis; out of the two histological examinations of the nerves which he was able to make in this first class of cases he found them once in perfect condition, and once presenting all the signs of degenerative atrophic neuritis in process of evolution. In the second class he places those observations in which he has not been able to find, as an explanation of the disease, either nervous affections or contagion. In the third class he places the cases which, after a most searching inquiry, he has been led to consider the alopecia as contagious. He has never been able to discover any parasite either in the hair or in the skin, and has never succeeded in giving alopecia to animals. In conclusion, he admits the opinion of Lailler, Vidal, and Besnier, that there exist both contagious alopecias and alopecias presenting the same features, but which ought to be attributed to troubles of innervation. There are no clinical characteristics which enable us to distinguish between these two orders of affection. He maintains that an investigation should be made before a child with an alopecia is admitted to the schools. If it be proved that it is a case of contagious alopecia, radical measures and isolation should be carried out. If, on the contrary, we have to deal with a trophoneurotic alopecia, it may be received in the school; but in cases of doubt decided prophylactic measures and supervision are advisable.

Books, Pamphlets, &c., Received.

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ORIGINAL ARTICLES.

INJURIES TO THE EYEBALL.

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MR. CHAIRMAN AND GENTLEMEN,—We all know, by somewhat disagreeable personal experience, that when a particle of dust gets into the eye, it occasions an amount of irritation out of all proportion both to the size of the offending body and to the structural injury inflicted; and every such accident must have impressed us, far more forcibly than any words could have done, with the extreme sensitiveness of the structures of the eyeball. In considering the subject of injuries to the eyeball, therefore, this extreme sensitiveness and delicacy must be borne in mind, especially when we remember that as the organ of vision, the eye demands the absolute integrity of all its structures; and hence an injury that might be trifling and insignificant in another part of the body becomes here grave and serious. The retina itself may be perfectly sound, but a corneal opacity will prevent the light from reaching it, and so that which in another part of the body would be a trivial and almost unnoticeable cicatrix, becomes in the eye a serious blemish, because it forms a great impediment to vision.

Injuries to the eyeball may be divided into two classes,

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namely, superficial injuries and deep injuries. The former class includes those injuries which involve the conjunctiva and cornea, while the latter comprises those which involve, in addition, the iris, the lens, the ciliary body, and the deeper parts of the eye generally.

Let us, in the first place, consider the superficial injuries to the eyeball. Although the eyes occupy a prominent and exposed position upon the face, Nature has done much to protect them from injury. Their rounded shape enables them to be moved by their muscles freely in all directions in the cavity of the orbit, while they rest upon, and are surrounded by, a quantity of fat, which acts like an elastic cushion, and deprives direct violence of much of its force. The margins of the orbital cavity also afford a strong protection, especially the overhanging frontal border, with its projecting fringe of eyebrows, while the busy winking of the eyelids prevents the slightest particle of dust from adhering to the cornea, and so keeps its surface constantly clear and bright. It is well known that when this unconscious winking cannot take place, as in paralysis of the facial nerve, the surface of the cornea rapidly becomes dull and dry, and even ulcerates, as a result of constant exposure. When any danger threatens, the eyelids are instinctively closed, and at the same time the eyeball is turned upwards, so that the cornea may be specially well protected behind the upper eyelid. When any foreign body, such as a particle of dust or a small fly, manages to evade the watchful guard of the eyelids, and enters the eye, the nervous apparatus at once comes to the rescue to expel the intruder. The fifth cranial nerve, which endows the conjunctiva and cornea with sensibility, supplies also the lachrymal gland, and so soon, therefore, as the conjunctiva is irritated by the presence of a foreign body, a copious flow of tears at once results by reflex action, and the irritant is washed towards the inner canthus, and floated out of the eye. Rubbing the eye, as every one in such circumstances feels inclined to do, seriously interferes with the process just described, because the foreign body is either driven to take refuge beneath the upper eyelid, or, if it possess sharp edges, to embed itself in the cornea. If, then, instead of rubbing the eye, a little patience be exercised, and the eyelids gently closed, Nature will, as a rule, bring matters right in the way just indicated. The reflex flow of tears may be promoted by rubbing the other eye, and the patient may thus relieve his feelings, without doing himself any harm.

In many cases, the foreign body becomes lodged beneath the

upper eyelid, and in order to effect its removal it is necessary to evert the lid. This little operation is easily performed, if gone about in the right way. Have the patient seated in a good light, and ask him to look downwards; then grasp the eyelashes with the thumb and index finger of the left hand, and pull the eyelid forwards and downwards; lay a probe or the edge of a coin along the upper margin of the tarsal cartilage, turn the eyelid upwards, and the operation is complete. When a patient complains that he has received an injury to his eye, the examination of the conjunctival surface of the upper lid ought never to be neglected, as to overlook a foreign body in this position is certain not only to occasion much unnecessary suffering to the patient, but also to bring much discredit on the surgeon. Among farm labourers, particles of straw or chaff frequently become lodged in the upper conjunctival *cul-de-sac*, so deeply that they may be hidden from view, even when the upper eyelid is everted. It is necessary, therefore, if it be suspected that a foreign body is present, not only to evert the eyelid, but also to carefully explore this *cul-de-sac* with a small probe. It is all the more needful to bear this in mind, as although the presence of the smallest particle of dust within the eye usually gives rise to intolerable uneasiness, yet the presence of larger bodies may be tolerated for weeks in the loose folds of the superior conjunctival *cul-de-sac*, their presence being indicated merely by slight inflammatory symptoms with swelling of the conjunctiva. Such an inflammation, however, is not at all influenced by the usual remedies, and only subsides after the removal of the foreign body.

Those particles of dust, &c., which are blown into the eye by the wind are usually found lying loosely upon the conjunctiva, and are, as a rule, readily removable with the point of a toothpick or the edge of a small silver spatula. When, however, the foreign body is embedded in the substance of the cornea or of the conjunctiva, the difficulty of its removal is directly proportionate to the depth to which it has penetrated. The foreign bodies of this class most frequently met with are what workmen usually call "fires." These "fires" are minute particles of metal, which, at a white heat when they fly from the tools, are projected against the eye with such force that they either cut or burn their way into the tissues, where they become fixed. The difficulty in removing such foreign bodies is usually greatly increased by the irritation and injury to the eye caused by previous unsuccessful attempts at removal. The Case Book of the Eye Infirmary furnishes

too many examples of the destruction of corneal tissue arising from the vigorous but futile efforts of a workman to extract a "fire" from the eye of his neighbour with the point of a pen knife. The "fire" itself will do less damage to the eye than do those rough and determined attempts at its removal. If the patient does not present himself to the surgeon until two or three days after the injury has been received, and if he has not allowed any one to meddle with his eye in the interval, it will be found that the foreign body is surrounded by a whitish ring of softened corneal epithelium, and a very slight touch with a cataract needle will cause this loose tissue containing the foreign body to separate from the parts beneath. In fact, if the sufferer had waited a day or two longer, the probability is that Nature alone would have brought about the same result by casting off the softened corneal tissue in which the foreign body was embedded, and so leaving a breach of surface more or less deep. The sooner, however, such foreign bodies are skilfully removed from the eye the better, and the most convenient instrument to use is either a cataract needle or a small gouge. The instillation of a few drops of a 2 per cent solution of cocaine renders the operation perfectly free from pain. Before attempting to remove a foreign body from the cornea, always have the patient seated in a good light, with his head well supported by the back of a chair, or, preferably, by the hands of an assistant. Separate the eyelids by the thumb and index finger of the left hand, and press slightly backwards, so as to fix the eyeball; then pass the needle or gouge behind the foreign body, and lift it from the cornea. A special speculum has been devised for separating the eyelids and fixing the eyeball, but its employment does not seem to possess any advantages over the skilful use of the fingers in the manner just described. When the foreign body has penetrated deeply into the substance of the cornea, and there is danger of pushing it backwards into the eye, a second and broader needle should be passed into the anterior chamber behind the foreign body, and with this extra support its removal is usually a matter of no great difficulty. The brownish stain which often remains after the removal of the foreign body ought to be carefully scraped away, in order that the healing process may be hastened. When a foreign body gets embedded in the conjunctiva, the best way to effect its removal is to grasp it with a pair of forceps, and cut out the piece of conjunctiva to which it is adherent with a pair of curved scissors.

Whenever a foreign body is removed from the eye, the

patient experiences an immediate sense of relief, and, as a rule, nothing more requires to be done except to bathe the eye with some antiseptic lotion, and, if pain continues, to apply a little ointment of cocaine and vaseline, and adjust a compress and bandage, which should be worn until all signs of irritation have passed away. When, however, from long contact with the foreign body, or from rough handling in attempts at its removal, the breach in the corneal surface is slow to heal, it should be lightly dusted with equal parts of precipitated iodoform and boracic acid in very fine powder—such treatment stimulating the healing process and counteracting, as far as possible, any tendency to suppuration. In this connection, I mention acetate of lead in order to warn you against its use. Lead lotions have enjoyed a well deserved popularity in the treatment of conjunctival inflammations, but, whenever there is a breach of surface, the acetate is decomposed, and a white precipitate is deposited. If this should happen upon the cornea, a dense, white glaring opacity is the result, and the patient's vision is permanently impaired. A case of this kind has recently come under my notice:—

James H., æt. 30, got a "fire" in his right eye a fortnight before his admission to the Glasgow Eye Infirmary. The "fire" had been removed some days before I saw him, but with extensive and deep destruction of corneal substance. As the pain was very severe, he had diligently used a lead lotion with which he had been supplied, and on his admission to the Infirmary, the floor of the ulcer was coated with a deposit of white lead. The iris was inflamed, so that the pupil did not yield freely to the action of atropine. Under treatment, the acute symptoms subsided, so the ulcer was gently scraped, and the lead deposit removed. A severe relapse followed this operation, and pus appeared in the anterior chamber. The pupil would not yield to the instillation of atropine, the pain was very severe, and the corneal ulcer was extending, so, in order to give free exit to the pus, and to relieve the tension within the eyeball, the cornea was incised—the section including sound tissue on either side of the ulcer. The subsequent progress of the case was very satisfactory, but it would have been much better for the patient if the "fire" had been skillfully removed at the first, and no lead lotion applied afterwards.

Wounds of the cornea may involve the whole thickness of the membrane, or implicate only its superficial layers. Those of the latter class are usually called abrasions of the cornea, and, unless the proper corneal substance be deeply involved, heal readily, as a rule, and leave no trace of their existence. They

may be produced by foreign bodies, such as chips of stone or metal, which have struck the eye, but have not adhered to it, and a frequent cause of such an accident is a scratch from a baby's finger nail. It is often difficult to discover such abrasions of the cornea, but by means of focal illumination, an inequality of its surface is usually detected, or when the patient is placed facing the light, the reflection of a window upon the cornea is seen to be broken at a part corresponding to the breach in its surface. The clinical aspects of such a case are, however, very characteristic. The history of the case points at once to an accident; the patient complains of intense pain of sudden onset, he spasmodically contracts his eyelids so as to shut out the light, and when asked to open his eye, he is unable to do so, on account of the intense photophobia. If the eyelids are now gently separated by the surgeon, the tears gush out of the eye, and a slight injection of the blood-vessels of the ocular conjunctiva will be observed. This injection is of a pink colour, and is confined for the most part to the pericorneal region. The pupil is, as a result of the irritation, slightly smaller than that of the sound eye. The instillation of a 4 per cent solution of hydrochlorate of cocaine will, in a few minutes, put an end for the time being, to all those urgent symptoms, and so permit of a more thorough examination of the surface of the cornea. The distressing intensity of the pain and other symptoms, as compared with the slight extent of the lesion in the cornea itself, seems on first thoughts difficult of explanation, and the difficulty does not appear any less when cases are seen in which the cornea is much more gravely implicated in its deeper layers, but in which the urgency of the subjective symptoms is not nearly so great. When, however, the nervous supply of the cornea is examined microscopically, an anatomical explanation is at once forthcoming, for it is found in sections which have been specially prepared with chloride of gold, and subsequently exposed to the light, that in the proper substance of the cornea the nerves deprived of their myeline sheath exist sparingly until the anterior layers are reached, where they branch to form a plexus. This, the ground or fundamental plexus, leads to another one much finer and denser, situated immediately below the anterior epithelium—the subepithelial plexus—and this in its turn sends out exceedingly fine varicose fibrils, which form a network among the epithelial cells. It has been demonstrated by Klein that many of those varicose fibrils have free pointed or bulbous extremities, which are separated from the fluids which naturally bathe the eye only by the anterior layer of epithelial

cells. It is merely necessary, then, that the most superficial of the epithelial cells be removed, in order that an irritant may reach this—one of the densest and most sensitive nervous networks in the whole body. Surely this is one of the most beautiful of the provisions which Nature has made for the protection of the eye from injury.

The main point to attend to in the treatment of these abrasions is to prevent the upper eyelid from rubbing upon the cornea in the act of winking, and so to avoid the constant irritation of those delicate nervous filaments of which we have just been speaking. As a rule, all that is necessary is to soothe pain by the application of an ointment of vaseline containing 2 per cent of cocaine, and then to keep the eyelids closed by a carefully adjusted compress and bandage, which, unless the pain be unusually severe, ought not to be changed oftener than twice a day. Each time the bandage is changed the eye may be douched with a hot solution of boracic acid. Under such simple treatment the corneal epithelium is rapidly reproduced, and unless the deeper layers of the cornea have been involved, every trace of the injury ought to have disappeared by the end of a week.* The essential point in the treatment of such cases is, however, the careful application of the compress and bandage; and when relapses occur, as frequently happens, the explanation is either that the compress and bandage have not been properly applied at the beginning, or else that they have been removed from the eye before the breach of the corneal surface has been thoroughly repaired. De Wecker has devised

* The corneal epithelium, although closely adherent to, is easily separable from, the anterior limiting membrane of its tissue proper, and under the microscope can easily be divided into three distinct layers—viz, 1, a deep layer composed of columnar cells; 2, a middle layer composed of polygonal cells and “cells of irregular shape about twice as broad as the columnar, but by no means so elongated. They are rounded and even in outline at the superficial extremity, but are jagged at the other, sending in processes or digitations which may be three or four in number, and which appear to fit in between the tapering points of the columnar cells”; 3, an anterior layer composed of squamous cells (Cleland “On the Epithelium of the Cornea of the Ox,” *Journal of Anatomy and Physiology*, 1868).

Many theories have been advanced to account for the surprising rapidity with which the corneal epithelium is reproduced after an injury. Ivanoff believes that the new cells are derived from a proliferation of the sub-epithelial layer of the corneal tissue proper, so that the newly formed elements require to pass through the elastic lamina before they can reach their final destination. Arnold, on the other hand, affirms that the new cells take origin in a finely granular protoplasmic substance, while Cleland, in the paper just quoted, states that “the corneal epithelium may be regarded as having its germinal stratum in its middle depth, from which growth proceeds toward both the cornea and the free surface.”

a little glass cup, which fits accurately over the surface of the cornea, so as to protect the abrasion from irritation while the epithelium is being restored. But surely this ingenious contrivance is quite unnecessary, for what could be more grateful to the broken surface of the cornea than the constant application of the soft mucous lining of the upper eyelid.

A thorn or a sharp piece of metal or stone may wound the cornea deeply and be retained in its substance. Such accidents always warrant a grave prognosis, as the foreign body may readily cause suppuration of the cornea, which will leave, even in the most favourable cases, an opacity of more or less density. In other cases the suppuration goes on, consecutive inflammation occurs in the iris and ciliary body, and in the worst cases the eyeball is totally destroyed by suppurative inflammation of the choroid—panophthalmitis. In every case where the foreign body is retained in the substance of the cornea, the eye ought to be very carefully examined by focal illumination, in order to detect as accurately as possible not only the nature of such foreign body, but also how deeply and in what direction it has penetrated the cornea. If it present a projecting edge, it ought to be grasped by forceps and carefully withdrawn from the eye, but frequently it is so embedded in the corneal substance that it has literally to be dug out; and as each case demands its own particular method of treatment, such accidents tax the skill of the most experienced operator. The subsequent treatment is similar to that suitable for other wounds of the cornea, and will be considered in detail farther on.

When the whole thickness of the cornea is involved the wound may be classified as an incised or punctured, or a contused or lacerated wound. Incisions and punctures made through the cornea, *e. g.*, in operations, usually heal up very rapidly, and leave no trace visible to the naked eye. The quicker the wound is made and the sharper the instrument by which it has been inflicted, the more readily and perfectly will it heal. The transparent structure of the cornea offers peculiar advantages for studying the process of repair in a wound of its substance; and when we remember that the process of cicatrisation, as it occurs in the cornea, differs in no essential detail from cicatrisation of a wound occurring in any other part of the body, this subject acquires an interest which is by no means confined to the eye specialist. In the cornea we can see what is going on, and, as Nature works, we can watch the various steps and note the progress she is making. Hence it is that the cornea has been the field for many a famous scientific

research, and much of our modern pathology is based upon the results of experiments carried out upon the eye. Very soon after the cornea has been divided by an incised wound there is an increased flow of blood in the pericorneal blood-vessels, and the edges of the wound become hazy from infiltration of cells, which shortly afterwards fill up its whole length, so as to seal its lips together. As cicatrisation progresses this exudation is transformed into a tissue, which is at first more or less vascular, very delicate, and contains a large number of cells, but which later on becomes dense and fibrous, while the number of cells rapidly diminishes. The anterior epithelium dips down into the wound and proliferates there, but Bowman's anterior elastic lamina and Descemet's membrane never re-unite after an injury. As time goes on the corneal cicatrix gradually contracts; and if the lips of the wound have been in accurate apposition, the mark of the injury will be detected only after careful examination. In contused or lacerated wounds, however, a visible cicatrix always remains, as from the nature of the injury accurate coaptation of the edges is not possible, and hence the newly formed tissue is much more abundant, because it has not only to unite the edges of the wound, but also to fill up all the irregularities of outline due to the laceration.

As I have said before, the subjective symptoms in the class of cases we are now considering are not nearly so distressing in their severity as those which accompany a simple abrasion of the cornea, and in uncomplicated corneal wounds the amount of pain suffered is not, as a rule, great. It is the likelihood that his vision will be impaired that troubles the patient most, and in order that the surgeon may satisfactorily answer his repeated questionings on this point, the exact nature and extent and the complications of the corneal injury must be carefully examined and considered. While it may be said, on the one hand, that no puncture or scratch, however slight, of any of the eye structures is altogether devoid of risk, yet, on the other hand, it may be affirmed that in a young and healthy patient there is no wound, within certain limits, from which, under favourable circumstances, recovery is not possible. What is most to be dreaded is the occurrence of complications; but as many of these involve the deeper structures of the eyeball, their full consideration must in the meantime be deferred.

In an uncomplicated corneal wound the great danger is supuration, and this risk is naturally much greater in contused and lacerated wounds, where the edges are bruised and not in

accurate coaptation, than it is in simple punctures or incisions. It is always a bad sign when the edges of the wound become swollen and assume a yellowish colour, because this is the result of purulent infiltration, which, beginning in the wound, is apt to extend between the lamellæ of the cornea, until its whole substance is destroyed, and the eye is lost for ever as an organ of vision.

The great aim in the treatment of wounds of the cornea is the same as in the treatment of wounds of any other part of the body—namely, to promote union by first intention, and, where that is not possible, to encourage rapid healing by every means in our power, and to limit the formation of the reparative material to just that amount which is necessary for the repair of the breach. The great drawback in the management of every case is that although the edges are thoroughly united, and any gaps in the substance of the cornea have been perfectly filled up, yet the new material, which has done all that so well, has not the true and regularly arranged lamellated corneal structure. It is, as Bowman puts it, “fibrous instead of being lamellated, and opaque instead of being translucent.” A corneal cicatrix then means a corneal opacity, or, as it is technically termed, a leucoma; and if this leucoma occupies the centre of the cornea, it will interrupt the passage of the light into the eye, and so prove most detrimental to vision. As time goes on a leucoma does, indeed, tend to diminish in size, but its contraction goes on only up to a certain point, and afterwards no treatment will tend to diminish it. When, therefore, a leucoma occupies the area of the pupil, it is necessary, in order that the patient may have useful vision, to excise a portion of the iris opposite a clear part of the cornea, and so permit the light to enter by this artificial or displaced pupil.

Sometimes, however, the opacity of the cornea is so extensive that it is impossible to improve vision by means of an artificial pupil; and it is in such cases that some have transplanted a piece of clear cornea from the eye of a rabbit, and have hoped that by so doing they would, as it were, put into the opaque cornea a window through which the light might enter the eye. These operations are often successful in so far that the transplanted portion of clear cornea heals in perfectly well; but unfortunately in nearly every recorded case the flap, in a few weeks at most, has lost its transparency, and become as impermeable to light as the leucoma itself.

From what has been said, it will be seen that in the treatment of corneal wounds, we desire to obtain the most rapid

and perfect union with the least amount of opacity, and the sooner a patient is put under treatment, after receipt of such an injury, the more likely is the result we aim at to be attained. The injured eye ought to be carefully washed with an antiseptic solution, and probably none is less irritating or more efficacious than a 5 per cent aqueous solution of Barrff's boro-glyceride. This solution should be gently but thoroughly instilled into the conjunctival *cul de sac*, and any foreign bodies on the surface of the eyeball, or caught between the lips of the wound must be removed. In every case in which the cornea is wounded in its whole thickness and the anterior chamber opened, the aqueous humour escapes, and the iris, now left without its natural support, falls forward against the posterior surface of the cornea; but whenever the gap in the cornea is closed, the aqueous humour re-accumulates in a remarkably short time, the anterior chamber re-forms, and the iris, if it be not involved in the wound, returns to its normal position. Owing to the sudden escape of the aqueous humour, however, at the time of the accident, the iris is very liable to prolapse, and, as Mackenzie was the first to point out, this complication is more apt to occur in wounds at the margin of the cornea than in those which involve its central portions. When the patient is seen sufficiently early, it is sometimes possible by gently rubbing the cornea through the closed eyelids, and then suddenly exposing the eye to a bright light to cause the iris to contract with sufficient power to make it return to its normal position. If this simple expedient fail, an attempt should be made to replace the iris by means of the curette and by the instillation of eserine, if the prolapse be at the margin, or of atropine, if it be at the central portion of the cornea. If, however, failure attend those repeated efforts at its replacement, the prolapse of iris must be cut off close to the eye with a pair of curved scissors. Should but a few days elapse between the receipt of the wound and the visit of the patient, the prolapsed iris becomes caught by inflammatory exudation, and will not be persuaded to return to its proper place, and in such cases it is sometimes difficult to know whether to leave the prolapse alone, or to cut it off as advised when dealing with a recent wound. When the prolapse is flat and sessile, the best results are got by puncturing it with a broad needle, and afterwards applying a compress and bandage—a mode of treatment which may be repeated several times until through cicatrization the prolapse flattens down, and usually gives no more trouble. If, on the other hand, the prolapse is

pedunculated, from a constriction at its neck, it is best to excise it at once, or to perform a free iridectomy. In both cases, however, the pupil is permanently drawn towards the site of the prolapse. To sum up the treatment of prolapse of the iris, it may be said that the surgeon ought never, if he can avoid it, to allow the iris to become caught by inflammatory exudation within the lips of a corneal wound, but if, before he sees the case, the iris has become firmly adherent to the wound, he ought to consider well before he meddles with it; because operative procedure in such cases is frequently followed by an irido-cyclitis, while experience has shown that the mere prolapse and adhesion of the iris are not necessarily followed by the disastrous results which used formerly to be attributed to this cause.

After the iris has been dealt with, the edges of the wound ought to be placed in apposition as accurately as possible, and the eye bandaged, while the patient should be kept at absolute rest in bed, with the other eye shaded from the light. If the bowels be constipated, a saline purgative may be administered and any inflammatory changes in the eye must be met by the employment of leeches, ice-cold applications, and the administration of calomel and opium. As a rule, however, uncomplicated corneal wounds, when properly treated, heal up readily without the occurrence of inflammation on the part of the iris or ciliary body; but even in the simplest wound suppuration may occur, as a result either of septic infection or of a low vitality, and consequent vulnerability of the structures of the injured eye, or most probably of both conditions combined. Suppuration is usually accompanied by great pain, but cases now and then occur in which the whole cornea is destroyed without the patient making much complaint. If severe pain be felt in the eye from twenty-four to forty-eight hours after the receipt of a corneal wound, it will usually be found that the eyelids are swollen and œdematous, so much so sometimes that they can be separated only with difficulty, but on gently raising the upper lid, the edges of the wound will be found to be swollen and infiltrated with pus, the cornea presents a streamy appearance, and even at this early date there may be a ring of pus around the ciliary margin of the iris. The ocular conjunctiva is deeply congested and chemosed and there is profuse lachrymation with muco-purulent discharge. Such a condition of matters warrants a very grave prognosis, and demands the most careful and persistent treatment; for in all likelihood the suppurative changes will go on until the whole cornea is involved, pus will accumulate in

the anterior chamber, and the iris and ciliary body will become affected, so that in the long run there will be not only permanent opacity of the cornea, but also softening and atrophy of the eyeball. From the first, tonics and stimulants are to be preferred to an antiphlogistic treatment, while locally antiseptic fomentations should be employed, and here probably a solution of the bichloride of mercury (1 in 10,000) is better than any other for limiting and controlling the suppurative process. Three times a day a weak solution of nitrate of silver and a 1 per cent solution of atropine may be instilled to act as a mild stimulant and sedative, checking the formation of the pus, and promoting the healing of the wound. Some advise that on the first appearance of purulent infiltration, the cautery should be applied to the lips of the wound, and favourable results are reported as having occurred from its use. Pain must be relieved by the application of belladonna ointment to the brow, and the internal administration of anodynes. But in spite of the best directed treatment and the most careful nursing, cases of traumatic suppuration of the cornea only too frequently end in destruction of the eyeball as an organ of vision.

Of all injuries to the cornea, none are more disastrous in their results than those due to the action of chemical irritants, of which quicklime and sulphuric acid are two of the most common. In all such cases the prognosis must be very guarded, as the action of the chemical extends far beyond its point of application, and what seems at first sight only to have caused a greyish haze over a part of the surface of the cornea will probably, by the end of a fortnight, have brought about the total destruction of that membrane, and the consequent extinction of vision.

The general symptoms are the same in all cases of burns or scalds of the eyeball, and their severity depends upon the nature of the irritant, the length of time it has remained in contact with the eye, and the extent of the structural injury it has produced. After a burn, from whatever cause, the pain in the eye is very severe, and the inflammatory reaction is rapid and violent. The eyelids are usually injured, but whether or not, they rapidly assume a dusky red colour and become so swollen that the interior of the eye can be seen only with difficulty. There is chemosis of the ocular and palpebral conjunctivæ, and the cornea becomes hazy over greater or less part of its surface. In less than twenty-four hours, the burnt surfaces are clearly mapped out, and are separated from the other tissues by a well defined zone in

which the inflammatory reaction, the result of the injury, is most acute. Pus now begins to be discharged, and the tissues, killed by the burn, are separated as sloughs, and after this separation recovery more or less complete commences, if the injury to the eye has not been too great. Should the case, however, be severe, the inflammatory process goes on, the conjunctiva becomes thickened and fleshy, the cornea suppurates and bursts, and the eye is consequently lost. In cases where the cornea does not give way and the shape of the eyeball is preserved, a dense leucoma remains, or from the thinning of the parts due to the separation of the sloughs the cornea bulges forwards, and a staphylomatous projection is produced. In this connection it may be noted that very severe causes do not always produce proportionately severe results. When molten metal, for instance, gets into the eye it might be expected to, and very often does, cause serious structural damage, and yet, on the other hand, there are cases where the injury produced is remarkably slight. The explanation of such a wonderful escape is that, on the first entrance of the metal, the great heat causes the moisture in the eye to pass into what physicists call its "spheroidal state," and the spheroids of water, acting as a non-conductor, protect the eye from injury.

In all severe burns, both ocular and palpebral mucous membranes are destroyed, and the raw surfaces left adhere in the process of healing, so that the eyelid becomes firmly fixed to the eyeball. This condition, which is known as symblepharon, will, no matter how much care has been taken to prevent it, certainly occur in every case where the retro-tarsal fold of conjunctiva has been destroyed, and where it is extensive, causes, in addition to its interfering with vision, intolerable discomfort from the sense of dragging which it produces. Although many operations have been devised for its relief, symblepharon usually proves so rebellious to treatment that only partial success can be hoped for even after the most approved operative procedure.

After a burn the healing process is slow, for the vitality of the tissues is lowered by the injury, and as the cicatrix goes on contracting, the eyelids may either become inverted so that the eyelashes rub upon the eyeball, or else they may be everted, and produce frightful disfigurement of the countenance, while the original damage to the cornea is augmented by constant exposure.

The treatment of burns of the eyeball is the same as that for acute suppurative inflammation, and in the case of injuries

from chemical irritants, special precautions have to be taken from the very first. In the case of quicklime, the severity of a burn is due to the fact that it usually remains for a considerable time in contact with the tissues, and its powerful escharotic action has thus time to take full effect. The slightest particle of lime entering the eye gives rise to the most intense irritation, leading to spasmodic closure of the eyelids and a copious secretion of tears—a combination of circumstances which is, as we have seen, most favourable in ordinary cases for the extrusion of a foreign body, but which in this case is most unfortunate, because by the firm closure of the eyelids the lime is pressed against the eyeball, while the tears slake any portion of lime which is yet unslaked, and the heat consequently evolved increases the rapidity of the work of destruction. When, therefore, unslaked lime has caused the injury, any particles remaining should be at once removed, and after the eyelids have been everted, the conjunctiva should be thoroughly douched by a stream of cold water, or if it be available, a weak acid solution. On the theory that sugar will dissolve the lime, and so cause its thorough removal, M. Gosselin has recommended that the eye should be douched with a solution of sugar; but the rapidity with which the lime destroys the tissues is so great that the work of destruction is usually completed before the surgeon sees the case, and as the solvent effect of saccharine solutions on slaked lime is very gradual, all that can really be done is to make sure that the conjunctival sac is thoroughly freed from any of the particles which may be adhering to it. After a burn from an acid, an alkaline douche is, of course, preferable, but in all cases after the eye has been washed, vaseline and cocaine should be applied to the conjunctiva, an iced compress laid over the closed eyelids, and the patient put to bed. In order to combat the inflammatory reaction which is sure to follow, the ice-cold compress should be continued, and saline purgatives administered, while the pain must be subdued by the application of leeches, and by either the administration of full doses of opium or by hypodermic injection of morphia in the temple. The use of these anodynes has the additional advantage of inducing sleep and soothing the nervous system generally. After a few days, warm applications are usually found to be more grateful to the patient than the iced compress, and the sedative effect of these fomentations may be increased by poppy heads and camomile flowers, while much additional relief may be obtained by smearing the eyelids, forehead, and temples with a mixture of extract of belladonna and

glycerine. When the acute symptoms have subsided, and the sloughs have begun to separate, antiseptic lotions should be used, and much benefit is often obtained from the daily instillation of a weak solution of nitrate of silver. Any iritic complications must be treated by the judicious use of atropine, but in this connection it may be mentioned that as burns of the corneo-scleral margin are apt to give rise to glaucomatous symptoms, the use of the atropine must be at once stopped if the patient complains of increased pain with sudden dimness of vision, and an endeavour must be made to reduce the increased tension of the eyeball by the energetic use of eserine or pilocarpine. During the cicatricial stage, the greatest attention must be devoted to overcoming the tendency to symblepharon. The adhesions must be diligently broken down with a probe, and the eyelids drawn away from the eyeball, so as to permit a layer of vaseline to be instilled between the two raw surfaces. Do what we will, however, symblepharon will in bad cases form in spite of all our efforts, and although much ingenuity has been displayed in devising mechanical apparatus to keep the lid separated from the eyeball, these, as a rule, fail to accomplish the object for which they are intended, because, as cicatrization progresses, there is none of them which does not get displaced, and the adhesions form again and again with a pertinacity which is most vexatious.

When the eye is damaged by a gunpowder explosion it receives a double injury, for not only is it burnt, but unignited grains of powder are driven against the conjunctiva with terrific force and embed themselves there. In blasting operations, so great is the force of the explosion, and so large the grains of gunpowder, that the eyes are sometimes completely destroyed; but I wish now to refer only to those minor accidents, which are mostly due to the premature explosion of fireworks. These mishaps regularly occur on the anniversary of the Queen's birthday, and although they do not often result in the loss of the eye, yet they many a time cause considerable damage to that organ. The following case illustrates the usual run of such accidents:—

Charles P., æt. 14, was first seen on the evening of 19th May, 1887. He was setting off fireworks when a "cracker" exploded in his face, and when I saw him he was almost completely blinded by the gunpowder, most of which seemed to have been blown right into his eyes. He was greatly frightened and appeared to be suffering much pain. After repeated instillations of cocaine the cornea of each eye was gradually cleared of the gunpowder by picking out the

particles with a gouge—a process which occupied considerably more than an hour. The boy was put to bed, cold compresses were applied to the eyelids, and an anodyne administered. Next morning it was seen that a few pellets of gunpowder still remained upon the right cornea, these were removed, and some vaseline and atropine instilled into the eyes. As some grains had become embedded in the skin of the eyelids a poultice was applied, and afterwards the particles were picked out. In less than a fortnight the boy was perfectly well, and bore no trace of his accident.

I have now, gentlemen, occupied more than the usual time allowed for the reading of papers without having been able to touch the second part of my subject—deep injuries to the eyeball—but I regret this the less because, fortunately, superficial injuries are those with which we have most frequently to deal, and those also in which we find the results of our treatment most successful. Apparently trivial as many of the injuries I have mentioned may seem, I have still I think said enough to show that they may have most disastrous results to the eye, and this must be my excuse for having detained you so long in dealing with the treatment of what might appear, on first consideration, trifling and unimportant accidents.

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CASE OF CYSTIC KIDNEY IN WHICH NEPHRECTOMY WAS PERFORMED.

By HENRY E. CLARK,

Surgeon to the Glasgow Royal Infirmary.

*(Read before the Surgical Section of the Medico-Chirurgical Society,
25th January, 1889.)*

THE patient, a woman 38 years of age, was admitted into my female ward on 26th June, 1888, having a tumour about the size of a cocoanut situated in the right lumbar region. She stated that she had been a patient in Belvidere Hospital five months before, suffering from enteric fever, but had recovered well, and been in good health till the week previous to admission. She had then been seized with pain in the abdomen, accompanied by constipation, and a doctor who saw her in her own home, in examining her abdomen, discovered the existence of a tumour. She was certain that she had not herself noticed it, until her attention was thus drawn

to it. She was the mother of seven children, and stated that none of the labours had been difficult. She ceased to menstruate three years before she came under my care.

The tumour extended from the floating ribs to the crest of ilium, and forwards as far as the linea semi-lunaris; by deep palpation it could be traced to the brim of the true pelvis, and there was some doubt as to whether it might pass into the pelvic cavity. The percussion-note was dull all over it, excepting its anterior border, where it was evidently covered by the ascending colon, and the dulness was continuous with the usual renal lumbar dull area. The tumour could be moved pretty freely, but motion was most limited in the downward and forward direction; it could be readily pressed into the lumbar region, and made prominent in the usual position of the right kidney. Its surface was irregular, and at its anterior and lower position had a distinct "bossy" feeling; no fluctuation could be made out in any part of it. Examination *per vaginam*, and by the uterine sound, showed the uterus to be normal, and unconnected with the tumour. We were quite satisfied that the tumour was not uterine or ovarian.

The patient was pale and anæmic-looking, but had a good appetite, and felt little pain in the tumour. The urine fluctuated in quantity, but in the later days of the history was increased, reaching to 72 oz. on one or two occasions, and rarely falling to 46 oz.; acid reaction; sp. gr. 1018, of a pale, straw colour; it contained a small quantity of pus, a trace of albumen, renal epithelium, and a few granular tube casts. There was a little difficulty in micturition, but no pain.

A week after admission, she was examined by Dr. Robertson, who concurred with me in the supposition that the tumour was renal; but was inclined to consider it a case of abscess of the kidney. My own opinion ran counter to this diagnosis, as there was no rise of temperature, no tenderness, and no fluctuation, and I therefore regarded it as a solid tumour.

Subsequently we had a consultation, when, although opinions were rather divided, the weight of authority was on the side of the view that the tumour was probably sarcomatous; and Dr. Gemmell, who saw it with me a few days after the consultation, and without any knowledge of what was suggested thereat, came to the definite conclusion that it was sarcomatous.

Catheterisation of the ureter was practised, but as no difference was found in the quality of the urine from the two kidneys, I doubted if it was successfully performed. I have now reason to think that the result was quite correct, and that we ought to have attached more weight to it than we did. To

my mind, the case confirms what I said in a previous communication to this Society as to the value of catheterising the ureter in cases of renal disease demanding surgical interference.

My final conclusion before operating was, that the tumour was undoubtedly renal, that it was probably sarcomatous, but might contain cysts, and that the lower end especially suggested a possible cystic formation. The patient was very anxious to have something done, and wearied of our long and frequent examinations.

The operation was performed on Sunday, 5th August (the Sunday following the meetings of the British Medical Association in Glasgow), and I had the assistance of Dr. Ward Cousins, of Plymouth; Dr. Lilly, of Southampton; and Dr. J. C. Clarke, of Wimborne, as well as Dr. Barlow.

I had intended to make a lumbar incision for reasons set forth in the communication I have referred to, but in consequence of the projection of the tumour downwards towards the pelvis, feared that incision would not give me all the space required for working in, and at the last moment adopted the median abdominal incision. At first three inches in length, it was later in the operation found necessary to carry the wound to about an inch above the umbilicus, so that it measured nearly six inches before I had done. The abdominal wall was very thin, and was easily dragged on one side, so that I had very free access to the tumour, which was distinctly extra-peritoneal, and was as distinctly cystic. My attempts to detach the peritoneum were only partly successful, as the superficial cysts easily broke down, from the strong adhesions their wall had formed with it, and you will see from the specimen that I subsequently cut that membrane near the outer edge of the tumour, leaving most of it still adherent. The tumour was found to have numerous and extensive adhesions, the most troublesome of these being an attachment to the Spigelian lobe of the liver, which had to be carefully scraped through with the finger nail. The vessels gave less trouble than I anticipated, and after ligaturing them, I sought for the ureter, but could not satisfactorily identify it, nor in the tumour, as now shown you, is its cut end recognisable. The cavity left after removal of the tumour was sponged out with carbolic solution (1 per cent), and the peritoneal cavity was then flooded with warm carbolic solution, repeating the flooding till the fluid was no longer stained with blood, and the edges of the wound were brought into apposition by deep and superficial chromic gut stitches. A glass drainage tube was inserted into the pelvic cavity.

Finding the disease to be so evidently cystic, I thought it best to ascertain the condition of the other kidney, and therefore passed my hand over to the other side of the abdomen and satisfied myself that it was enlarged (though not to any very great degree), and that it was bossy. This caused me to give a doubtful prognosis as to the result of the operation, couched in the words, "If the other kidney is able to take on the work she will recover."

For the first eight hours the patient did extremely well, and when I saw her in the evening of the day of operation she was easy, pulse good, and there was no shock, but she had passed no urine, and the catheter being used, only $3\frac{1}{2}$ oz. was withdrawn; the temperature also was subnormal. On the following morning, finding that no urine had been secreted, I ordered the injection of pilocarpine subcutaneously. This caused nausea and vomiting, followed by very profuse diaphoresis, but there was no secretion of urine; she had a cough, with bronchitic râles over both sides of the chest. There was thus complete anuria, and we anticipated uræmic convulsions with drowsiness passing into coma. This was the course of events, but the convulsions were few and brief, and only attended the fatal issue. She died fifty-two hours after the operation.

No *post-mortem* examination was allowed.

The specimen before you requires no lengthened description. It is a typical example of cystic degeneration of the kidney, the upper ends of the uriniferous tubules being converted into small cysts which do not communicate with each other or with the pelvis of the kidney. It is the tubules of the cortex that are chiefly affected, so that small islands of healthy Malpighian pyramid are left here and there, and the amount of kidney structure capable of doing work is much greater than would be at first sight imagined. There are one or two cysts in which suppuration has taken place, this being probably coincident with the temperature wave shown in the second chart.* Cystic degeneration is commonly the result of chronic interstitial nephritis, and is accompanied by albuminuria and the presence of renal epithelium and granular casts in the urine. It is more common in males than in females, and is most frequent in middle life, that is to say, between 30 and 50 years of age. The patient is generally sallow, there is no œdema, the heart is hypertrophied, and the arterial tension increased; pains in the loins and hæmaturia are present, and the latter is often a marked symptom. It is curious that my

* The charts were shown at the meeting by Mr. Clark.

case, although agreeing with the general run as regards the first two characters (sallow complexion and absence of œdema) does not agree in the other particulars, for there was no hypertrophy of the heart, no increased arterial tension, no hæmaturia, and what inconvenience there was appeared to be solely due to the weight and pressure of the tumour.

Operations for the removal of cystic kidney are not very numerous. Dr. Newman has collected 15 cases with 5 deaths, a mortality of 33·3 per cent; but in two of these, when the operation was done by the lumbar incision, both the patients recovered. The reason for this high mortality is not difficult to find out. The cystic kidney is most commonly bilateral, so that the other kidney is not in a fit condition to take on the extra work thrown on it; moreover the diseased kidney, however large it may be, or however completely it may seem to be converted into cysts, contains a large quantity of functionally useful structure. Thus the second kidney has thrown upon it suddenly a very serious addition to its work, and is generally unable to do more than it has hitherto accomplished. Indeed it would appear that the second kidney is commonly so affected by the shock of the operation that it stops secreting altogether, for in the causes of death recorded by Brodeur, out of 8 deaths 2 are said to be due to anuria (suppression of urine) and 13 to shock.

It is curious that of the 46 cases collected by Newman, in which nephrectomy was performed for hydronephrosis or cystic tumour, in 15 cases the diagnosis was one of ovarian tumour, or excluding cases of hydronephrosis, the mistake was made in 15 cases out of 22 cases of cystic disease of the kidney. This is the more curious, because in my case the suspicion of ovarian tumour, which certainly suggested itself at first, was easily and definitely negatived.

Our mistake was in taking it for a solid tumour, or a solid tumour with interstitial cysts. Had we definitely diagnosed it as cystic degeneration we should have done well not to interfere, in spite of the urgent request of the patient, and the fact that the intrepidity of the surgeon has on some few occasions been rewarded by the recovery of his patient even under conditions as unfavourable as those of my patient.

MALFORMATIONS OF THE PARTURIENT CANAL.

By HARRY ST. CLAIR GRAY, M.D., C.M., L.M.

(Read at Glasgow Southern Medical Society, 7th February, 1889.)

MR. PRESIDENT AND GENTLEMEN,—I bring forward my short paper to-night, with the hope that I may learn the frequency of such malformations occurring in the practice of the other members of the Society, and also of their diagnosis and treatment.

The uterus is formed from the two ducts of Muller, which lie parallel and anterior to the Wolfian bodies in the mesoderm. The duct cannot be recognised before the fourth week after impregnation, at which time it appears as a linear furrow in the germinal epithelium, which deepens and then contracts to a solid cord, and later becomes hollowed. According to Dohrn, the two ducts coalesce at their lower portions to form the vagina and uterus about the end of the seventh week of foetal life, while the upper portions become the tubes.

In the eighth week the ducts of Muller are still separated throughout their whole extent by the septum, but between the eighth and twelfth weeks this membrane gradually disappears, beginning above, where the uterus and vagina are differentiated, and proceeding from this point from below upwards in the uterus, and from above downwards in the vagina.

From the above, it will be seen that deformities may arise either from complete absence of the Wolfian bodies, ducts of Muller, and the genital glands, or from an arrestment in their development. As my cases have been due to the latter cause, I shall confine myself to that. An arrest of foetal development may give rise to a large number of deformities, of which the most important ones have been classified by Coury as follows :—

1. *Uterus Unicornis*.—Where one of the ducts of Muller has been incompletely developed or has become atrophied while the other has been fully developed. We then have a uterus which is composed of a single lateral half, possessing generally but one Fallopian tube.

2. *Uterus Duplex* or *Didelphys*.—Where both ducts are developed but do not fuse together. Thus two distinct uteri are produced, each of which is in reality the half of a normal uterus.

3. *Uterus Bicornis*.—Partial union of the filaments of

Muller takes place, but without reaching the ordinary level indicated by the insertions of the round ligaments. The upper portion of the uterus is thus divided into two horns, separated by a furrow from one another.

4. *Uterus Cordiformis*.—An arrestment in the development of the fundus takes place, so that the latter remains depressed.

5. *Uterus Septus Bilocularis*.—Complete union of the two filaments of Muller has taken place, but the common wall, formed by their coalescence, persists. We have thus two distinct uterine cavities. The septum may extend the whole length of the vagina and give rise to a double vagina, or absorption of the vaginal septum and a portion of the uterine septum may have taken place, so that we may have a double uterine cavity with a single cervix "*uterus semipartitus*." Thus we see that a double uterus may occur under various forms.

The uterus and cervix may be double the vagina remaining single, or the uterus may be double with a single cervix and a single vagina. Or, again, the uterus may be double with a single cervix and a double vagina, the septum beginning at the os internum. The rarest form, I believe, is that of a single uterus with a double vagina. All these different forms are, however, no barrier to normal utero-gestation, provided that each half of the genital canal be sufficiently developed. However, pregnancy is rare when both the vagina and uterus are double.

It is said that, as a rule, it is easy to diagnose when a double uterus exists, even during pregnancy, as when pregnancy exists in only one horn, it is seen by abdominal palpation to be unilateral. It is still a disputed point as to whether these malformations be a cause of miscarriage or not. The complete functional independence of the two segments is demonstrated by the fact, that in twin pregnancies, parturition is frequently not simultaneously accomplished by them. Tedious labour may, however, result from these cases, from uterine atony, due either to imperfect development of the muscular fibres, or to the fact that the expellant forces do not act in the proper direction, or that the unimpregnated horn forms an obstruction to delivery.

The following are the notes of three cases of malformations which I have met with in my short experience:—

CASE I.—On the 19th December, 1886, I attended, in conjunction with another resident of the Rotunda Hospital, Dublin, the case of Mrs. C., aged 25, primipara, who had been

in labour for about six hours. On examination by the vagina, we discovered that the vagina was divided into two by a vertical septum of fleshy character. The whole appearance was exactly like a double-barrelled fowling-piece, the left barrel (so to speak) being slightly the larger of the two. On introducing my finger into the left vagina, I could make out the cervix with a little difficulty, the os then dilated to a little over the size of a shilling; while in the right vagina we could make out nothing.

After waiting a considerable time, I passed up the right vagina a silver catheter with a wire in it, used to plug the posterior nares, and passed a ligature from the right into the left vagina. I then ligatured the septum in two places, and cut between them. Having done so, we left the case to nature; and after a rather tedious labour, a small but healthy female child was born. There was slight *post-partum* hæmorrhage, easily controlled by the ordinary methods. The patient made a good recovery.

CASE II.—On the 6th September, 1888, I was sent for by the nurse of the West End Branch of the Maternity Hospital to attend a case of prolonged second stage. On vaginal examination, I made out the head lying low in the vagina, and stretching across the vagina, from side to side, was a peculiar band, composed of two fleshy columns, united by a tendinous cord, forming a perfect bridle; catching hold of it, I tried if I could pull it asunder, but was unable, so divided it in the centre. The birth, which had been obstructed by it, then came on, and a large female child was born without any further difficulty.

CASE III.—On July of last year I was called to attend the confinement of Mrs. R., whom I had previously attended about seven months before, with a six weeks' abortion. She had had two abortions while in India, her husband being in the army. On arrival I found her quite excited about having, as she thought, a premature child, as this was the longest time she had yet carried.

By abdominal palpation, I found the head, freely movable above the brim of the pelvis, from which I concluded I would find a contraction at the brim, but on examining by the vagina, I found the pelvis to be normal in character. The os was then dilated to about half size, membranes intact, a copious show, and every evidence of an easy delivery. The pains were regular and strong in character.

I encouraged her to walk about until the membranes ruptured, but after waiting there for three hours, I found that the os had increased very little in size, and as the pains were strong, I felt rather astonished at the slow progress of the case. After waiting two hours more I ruptured the membranes, hoping to hasten delivery. Still the os would not dilate, though it could easily be distended with the fingers. After distending the os as much as I could I allowed nature to take its course for other two hours, when, as the os still remained the same, I put the patient under chloroform, and thoroughly explored the parts, but could make out nothing abnormal. As the patient's pulse and temperature were rising, and the vagina becoming dry, I determined to turn. On pushing up the head with my left hand it went away from my hand easily enough, but my hand seemed to slip into an empty space, where I could easily turn it about. The true nature of the case then burst upon me, so withdrawing my hand slightly, I introduced it along the left border of the uterus, got hold of a foot and turned, and in a short time delivered a full term child. I then expressed the placenta, and again introduced my hand into the uterus, when I could distinctly feel two different chambers, separated by a septum, which was so plainly felt, that I got it between my fingers, and by moving my fingers could distinctly make out that they were separated by it. The patient made a good recovery, and when I vaccinated the baby I examined her carefully with sounds, which could be passed into the different cavities. The right side being slightly the shorter of the two.

This case I consider is one of "*uterus septus bilocularis*," and I feel certain that it was a case of twin pregnancy, the right horn aborting at six weeks and the left going on to full term.

In reply to Dr. Hamilton as to the cause of the delay in delivery, and as to why Dr. Gray performed version instead of applying forceps—Dr. Gray said he considered the delay due to the unimpregnated horn forming a barrier to delivery by not allowing the uterus to contract in the proper direction, and he turned because the head was free above the brim, and at the same time he was exploring the interior of the uterus.

AMPUTATION THROUGH THE MEDIO-TARSAL ARTICULATION.

BY DR. MILROY, KILWINNING.

(*Read at the Surgical Section of the Medico-Chirurgical Society,
25th January, 1889.*)

On the evening of the 7th September, 1885, I was called upon to attend John Young, aged 19, who had sustained a severe injury to the foot. I learned that a piece of iron about 2 tons in weight had fallen upon the back of his right foot. This weight had crushed and abused the tissues and bones so much, that amputation was considered absolutely necessary. The joint between the internal cuneiform and scaphoid was opened by the falling metal, and the cuboid was broken. The strong plantar tissues remained intact. On proceeding to amputate I left the scaphoid, disarticulated the cuboid, and then dissected a long flap from the sole of the foot. The dressings were first changed on the sixth day when everything looked well. Progress from this time was uninterrupted. In less than a month the stump was perfectly healed. A short time afterwards he was allowed to go about on crutches, which he by and bye threw aside, took for a short time to walking sticks, and finally walked without any assistance. Nearly 3½ years have elapsed since I performed this operation, and the cicatrix is no nearer the sole of the foot than it was 6 months after the operation. This young man can walk 20 miles at a stretch. He is working in a foundry where he requires to be on his feet for 10 or 12 hours daily, still he complains of no pain in the stump. You will notice from the way in which he walks that he has a slight spring, he has little or no halt and wears an ordinary boot. I attribute these happy results to my leaving the scaphoid bone. This operation may have been performed hundreds of times, for aught I know to the contrary. It is not, however, taught in our schools, or mentioned in our ordinary text books.

In the Scotch schools we are told that if we cannot perform a Lisfranc, we should amputate at the ankle joint by a Syme; at any rate we should keep clear of Chopart. I have in this case kept clear of the much tabooed Chopart and of Syme also. This stump, to my mind, is superior to a Syme, and much superior to Chopart. If you look for one moment at the little arch formed by these three bones—the scaphoid, astragalus, and os calcis—you will at once see the reason why

he has got a slight spring. The weight of the body comes down almost on the keystone of this little arch. The scaphoid undoubtedly falls from the original position which it occupied in the ordinary and larger arch of the foot, but not so far as to bring the cicatrix under. I find that in such a case as this it falls about 25 degrees, and the os calcis is raised the same. Now, had I made a Chopart instead, no arch would have been left, and the astragalus would fall through 35 degrees, whilst the os calcis would be raised the same. This makes a very great difference, and would be certain to bring the cicatrix under; besides, the weight of the body no longer falls on the centre, but gives an advantage to the tendo Achillis of about 2 to 1. These facts, then, render this amputation far superior to Chopart's; but it is also superior to Syme's in this—the length of the limb is maintained; he has not that limp peculiar to a Syme; he does not require to wear anything but an ordinary boot; his base of support is greater; and he has, as I have already said, a slight spring. With these few remarks I wish to commend this operation to the consideration of you hospital surgeons, whose experience in operations amongst the tarsal bones is much greater than mine.

CURRENT TOPICS.

GLASGOW AND WEST OF SCOTLAND MEDICAL ASSOCIATION (GLASGOW MEDICAL JOURNAL).—The annual meeting of this Association, which comprises the subscribers to the *Glasgow Medical Journal*, was held in the Faculty Hall, on the 4th February last, the President, Professor M'Call Anderson, in the chair. The reports of the Treasurer and Editors were read and passed, and were satisfactory. Dr. Beatson, at the end of his financial statement, said, "I would, in conclusion, urge on all the members of the Association the importance of personal efforts in keeping up the membership," and we hope that our readers will take the Treasurer's hint. The Editors' report showed that during the year the size of many of the numbers of the *Journal* had been greatly increased, chiefly owing to the pressure at the time of the British Medical Association Meeting, and to the voluminous nature of the transactions of our Medical Societies. Dr. James Finlayson, in reporting on the work of the Index Committee, recapitu-

lated the history of the undertaking, which had been almost entirely carried through by Dr. Malcolm M'Murich, and stated his belief that the entire work would be out of the printer's hands in the course of a fortnight or so.

Dr. Alexander Napier resigned the post of Secretary of the Association and Joint Editor of the *Journal*. He proposed Dr. J. Lindsay Steven as his successor, the proposal being seconded by Professor M'Call Anderson, and carried unanimously. Dr. Joseph Coats proposed, and Dr. W. J. Fleming seconded, "that the thanks of the Association be given to Dr. Napier for his services during the past ten years;" the motion was adopted with acclamation.

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BRUCE GOFF, M.D., Bothwell.

A. NAPIER, M.D., Crosshill.

BRITISH MEDICAL ASSOCIATION—GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of this branch was held in the Board Room of the Glasgow Royal Infirmary on Thursday, the 7th February, 1889, at half-past two o'clock P.M. The president, Dr. Joseph Coats, resigned the chair to Dr. D. Macleod, Kilmarnock, after which the Secretary, Dr. Alexander Napier, read the minutes of the last meeting, which had been held in the Glasgow Hospital for Sick Children. One of the chief features in the minutes was the report by Dr. Walker Downie of the Collective Investigation Committee. No schedule had been applied for by any of the members, and this Dr. Downie attributed to the plethora of subjects set down for investigation, concerning which he had addressed a letter of protest to the General Association. Dr. Napier next read the annual report of the Council of the branch, which dealt chiefly with matters pertaining to the recent meeting of the Association in Glasgow. The membership of the branch was 169; during the year one member had died, and five had resigned. Dr. Alexander Robertson then read the treasurer's

statement, which showed that financially the condition of the branch was exceedingly satisfactory. Some conversation, introduced by Dr. Joseph Coats, then took place as to the object to which the large balance at the credit of the branch should be devoted. Dr. Robertson indicated that possibly the best object to which the funds could be devoted was to lay it past, to assist in defending any action which might be raised against a member of the branch. Every medical man was liable to have such actions raised against him, and as a rule they were generally raised without any proper foundation. Dr. Coats then proposed that the allowance to the representative of the branch at the General Council of the Association be raised to £10. The motion was seconded by Dr. Yellowlees and unanimously agreed to. Dr. Bruce Goff, of Bothwell, submitted the report of the Medico-Ethical Committee, and stated that no case had come before the committee during the year. The election of office-bearers for 1889 was then proceeded with, and the following gentlemen were unanimously chosen:—

<i>President,</i>	.	.	DR. D. MACLEOD, Kilmarnock.
<i>President-Elect,</i>	.	.	DR. H. C. CAMERON.
<i>Vice-Presidents,</i>	.	.	{ DR. D. FRASER.
			{ DR. JOSEPH COATS.

Representative Member on Council of Association.

DR. BRUCE GOFF.

Ordinary Members of Council.

DR. J. D. MACLAREN.	DR. W. HALDANE.
DR. A. WOOD SMITH.	DR. A. ROBERTSON.
DR. W. FREW.	MR. A. E. MAYLARD.
DR. D. YELLOWLEES.	DR. MARSHALL, Greenock.
DR. J. GLAISTER.	
<i>Hon. Secretaries—</i>	{ DR. A. NAPIER, Crosshill.
	{ DR. FREELAND FERGUS, 191 Bath Street.

This concluded the formal business of the meeting and the members then proceeded to the wards of the hospital where the following demonstrations were held:—Dr. Alexander Robertson showed (1) a patient with polyuria, who had improved under the passing of a galvanic current through a medulla oblongata, and the current was passed at the meeting; (2) a case of diver's paralysis; (3) thermal regulators of india-rubber and metal; (4) a patient with inco-ordinate movements of one arm; and (5) gave a demonstration of percussion of the skull. Dr. Wm. Macewen described a new method of treating aneurism by inserting long slender needles into the tumour in such a way as to irritate the wall of the sac, and so lead to the

formation of white thrombus. The needle might be kept *in situ* for from one to twelve hours, the position of the point being varied from time to time so as to act on different parts of the wall. Two specimens and one patient were shown where great consolidation of the aneurism had resulted from this treatment. Dr. Macewen next showed a patient from whom a portion of the brain had been removed for epilepsy. The left arm had been paralysed for some time after the operation, but had almost entirely recovered, and the lad had had no fits since the operation was performed about the end of August last. Dr. J. Lindsay Steven, under whose care at the Royal Infirmary Dispensary the patient had been since the beginning of February, 1888, and who had sent in the case to Dr. Macewen's wards for surgical treatment, then gave some details as to the medical treatment, and pointed out that for two or three years previous to the operation the fits had been as frequent as one every two or three weeks. The symptoms pointed to a lesion situated in the motor area of the right side of the brain—specially in the arm centre. Dr. W. J. Fleming showed and demonstrated the use of new instruments for the diagnosis and treatment of diseases of the bladder and urethra; and showed the artificial spine, demonstrated spinal extension, and exhibited numerous cases. The members of the branch afterwards dined together in the St. Enoch's Station Hotel.

THE PATHOLOGICAL AND CLINICAL SOCIETY.—The sixth ordinary meeting of the Society will be held in the Faculty Hall, 242 St. Vincent Street, on Monday, the 11th March, at 8 o'clock. The following cases and specimens will be shown:—Dr. Newman—(1) A case of renal cystic disease; and (2) a case of congenital hydronephrosis. Dr. Rutherford—The dissected parts of a recent dislocation of the femur. Dr. Finlayson and Dr. Barr—A specimen from a case of purulent meningitis in the posterior fossa of the skull due to ear disease. Dr. Renton—A case of double club foot in which both astragali were removed with benefit. The Secretary, for Dr. John H. Carslaw—A misplaced and malformed kidney. Dr. John Lindsay Steven—As a card specimen, microscopical sections of a polypus of the rectum from a child.

On Monday, 25th inst., a special meeting of the Society will be held for the exhibition of specimens, &c., illustrative of healing and healed pathological lesions. This, the second of the two meetings which the Society has set apart for this particular object, will be devoted more especially to lesions of

surgical interest, such as healing or healed processes in bones, joints, &c. Contributors are requested to intimate as early as possible to the Secretary any specimens they wish to exhibit in order thereby to facilitate as much as possible the proper grouping of the preparations.

A. ERNEST MAYLARD, *Hon. Sec.*,
4 BERKELEY TERRACE.

J. LINDSAY STEVEN, *Hon. Edit. Sec.*,
34 BERKELEY TERRACE.

GLASGOW ROYAL INFIRMARY.—The Annual Report for the year 1888 shows that during the year 5,043 patients were admitted, and 5,030 were treated to a conclusion. The numbers admitted to the medical and surgical wards were 2,051 and 2,992 respectively. The total mortality was 8·4 per cent; but, excluding those who died within forty-eight hours after admission, the mortality was only 6 per cent. There was an increase of 253 in the number of patients treated, as compared with 1887, and a slight decrease in the death-rate. The number who died within forty-eight hours of admission was large, no less than 126, or nearly 30 per cent of the total deaths having occurred within that period. It is to be hoped that none of that number were sent by medical men in general practice, as the removal of patients in a dying condition from their homes is useless and cruel. The number remaining in the Hospital on 31st December, 1888, was 527, the daily average number resident was 515, and the average duration of residence was 36·5 days. This compares unfavourably with the average residence in the Royal Infirmary, Edinburgh, and ought to be looked to. Probably it is owing to the greater care exercised in Edinburgh, as to the selection of cases for admission and which are likely to receive immediate benefit; at any rate, the high average residence in the Glasgow hospitals shows that they contain a very large number of chronic cases. The number of casualty accidents treated in the wards was 1,499; the lowest number of patients in the house on any one day was 445, and the highest number 562. The number of visits made by patients at the Dispensary was less than in the previous year, being 25,846 against 26,124. The special departments were well attended, but there was a decrease of cases at the dental and skin dispensaries. The cost of each fully occupied bed was £47, 11s. 5½d. against £47, 3s. 5d. for the year 1887; and the average cost of each patient treated to a conclusion was £4, 17s. 5d. against £4, 16s. 11d. The

numbers of the staff and of the employees are given as in the previous year, and the total average daily population was 710. The removal of the nurses from their sleeping apartments in the wards to the Nurses' Home, is said to have contributed greatly to their health and comfort, and it is a pleasure to note this, as the fine Home erected for them is certainly one of the most valuable, as it is also one of the latest, additions to the infirmary. Drs. Middleton and Adams are thanked for their lectures to the nurses, and notice is taken of the visit of 200 members of the British Medical Association in response to the invitation of the managers. The financial statement shows that there was an increase of £113, 14s. 3d. in the ordinary income, whilst on the other hand there was an increase of £1,285, 11s. 4d. in the ordinary expenditure as compared with the year 1887. This increase in the expenditure is accounted for by the larger number of patients resident; and we also observe that there was an increase in the amount expended for repairs. The extraordinary income was £11,178, 17s. 8d., the extraordinary expenditure £5,991, 0s. 11d., and the balance of total expenditure over total receipts was £1,150, 18s. 9d. This balance on the wrong side was owing to the sums expended on the Nurses' Home and the covered passage which connects it with the main buildings. This covered passage is also used by the patients in cold or inclement weather, and as it is being embellished with plants, a number of valuable ones having been contributed by Sir James Watson, it will be a pleasant place for the patients to resort to. Efforts are being made to form the School into a "Limited Liability Association," under the name of St. Mungo's College. With all due deference to our patron saint, we think a better name might have been bestowed upon it. An alteration has been made in the hours when patients should attend to be examined before being admitted. No applicant can be refused until the opinion of the resident medical officer has been confirmed by one of the dispensary staff. The titles of the residents have also been changed. They are now called House Physicians and House Surgeons, to distinguish them from the Assistant Physicians and Assistant Surgeons. The usual statistical tables are appended to the Report. None of them call for any remark, except the Operation Table. The total number of operations was 930; the number of major operations was 78, with a mortality of 15·3 per cent. There is a feature in the Operation Table which we think ought to be followed in all Hospital Reports. There is a separate table for amputations, giving the age and

the period of residence after operation of those who died. This will enable the statistician to exclude from his calculations all those whose chances of living were hopeless from the first, and who died within 48 hours after operation had been performed; such deaths have hitherto unnecessarily swelled the mortality of major amputations. Thus, if we take the table of major operations before us, we find that out of 78 amputations, 7 died within 24 hours after the operation. If these are deducted from the total number, the mortality, instead of being 15·3, is reduced to 7 per cent, or less than a half. This is the only way by which a correct estimate can ever be formed of the results of amputations, especially in hospitals. After an attentive perusal of this Report we have pleasure in stating that very important and improving work is being successfully carried on in the wards and dispensary of the Royal Infirmary.

THE ANNUAL REPORT OF THE GLASGOW WESTERN INFIRMARY.—In the fourteenth annual report of the Western Infirmary for the year ending 31st October, 1888, which has been recently issued to the subscribers and friends, we observe that the number of in-patients is 3,605, being a slight increase upon the previous year. The average daily number of patients was 374, or in other words upwards of 93 per cent of the full complement of beds were occupied during the whole year. The cost per fully occupied bed was £47, 16s. 10½d. as against £49, 0s. 3½d. in the previous year.

The average residence of each patient was 37·92 days, while in 1886-87 it was 37·2. Much has been said of late about average residences and the comparatively long residence of patients in the Glasgow infirmaries. We have compared the last published reports of the other large Scotch infirmaries, and we are surprised to find that the method of computation is not the same in all. In Edinburgh and Aberdeen it is evident that the same method is employed, and the average residence in these infirmaries is 26·13 and 28·29 respectively. The formula used for ascertaining the average residence in these institutions is:—

Average daily number × number of days of year.

Number treated to a termination + the number still in the Infirmary.

Applying this formula to these numbers, as stated in the reports of the Royal and Western Infirmaries of Glasgow, and the Dundee Royal Infirmary, we find that the average residence is 34 days (Royal Infirmary, 1887), 33·82 days (Western Infirmary, 1886-87), and 24·88 (Dundee Royal Infirmary,

1886-87), and not 36·17 days, 37·2 days, and 27 days, as stated in their respective reports. Even with this correction the residence in the Glasgow infirmaries is 6 days longer than in Aberdeen, 8 days longer than Edinburgh, and 9 days longer than in Dundee. So long, however, as we have the present over-pressure on the accommodation of the Glasgow infirmaries causing the rejection of many of the slighter cases for want of room, and no associated convalescent homes, it would impair the utility of our general hospitals to attempt further to reduce the average residence of the patients. In Dundee, with its short average residence, it must be noted that some 31 per cent of the patients pass through their convalescent home where the average residence alone is three weeks, while only 9 or 10 per cent of our patients in Glasgow get the benefit of a convalescent home. Edinburgh, Dundee, and Aberdeen have convalescent homes directly associated with their infirmaries, while the Glasgow Western Infirmary depends chiefly upon the ten beds allowed by the directors of the Lenzie Convalescent Home, and the Royal Infirmary upon a similar though, we understand, a larger privilege. Surely the beneficence of our great commercial centre will soon remedy this.

In the out-patient department there is a decrease in the number attending the dispensary. It is noteworthy that the old and misleading plan of giving only the number of attendances at the dispensary and calling it the number of patients attending, has been given up in recent reports, and that both these numbers are given now in parallel columns. We think it right here to state that the infirmary authorities also record the address and other particulars of all applicants for advice, and medicine is given only to those who apply specially for it and satisfy the clerk that they are in needy circumstances.

Turning to the tables of statistics, we regret that they are of so meagre a description, and hope to see full medical as well as surgical tables in future reports. It is satisfactory to note that the income shows a slight increase as compared with the previous year. In this connection we direct special attention to a new feature of the present report, the annual subscribers being arranged according to streets as well as alphabetically.

GLASGOW SICK CHILDREN'S HOSPITAL.—The annual meeting of the subscribers to this Hospital was held in the Merchants' House, on the 30th January last, Sir James King, Bart., Lord Provost, presiding, and was well attended. The following extracts from the Directors' Report may be of interest to our readers :—

"During 1888, there were 540 patients admitted to the Hospital, as compared with 470 the preceding year. The experience of the dispensary during the short time it has been open, shows that in future it will act as a steady feeder to the wards of suitable cases. While the increase on surgical cases was nearly 20 per cent, the increase on medical cases was only 10 per cent. At the dispensary, the medical outnumber the surgical cases by fully 50 per cent. The average daily number under treatment was 62, as compared with 57 in the previous year; the average duration of residence was 41·5, in place of 44·5 days; and the proportion of deaths to total discharged 8·5, as compared with 7 per cent. If deaths within 24 hours are deducted, the death-rate is reduced to 7·8 per cent. It is worthy of note that 16 infants aged under 1 year were treated, the highest number in any previous year having been 7. The ordinary expenditure of the Hospital was £2,703 6s. 2d., as compared with £2,320 17s. 1½d. last year.

"Special attention is directed to the statement in the report of the ladies' auxiliary of the benefits conferred upon convalescents by admission to the homes for children at Dundonald and Helensburgh. The directors are satisfied that a similar convalescent home under their management would be of the greatest use, both by increasing the invaluable resource of fresh air and exercise as an aid to the recovery of city children, and also as a recruiting place for the nurses and sisters. A Sick Children's Hospital Convalescent Home would serve this double purpose. The Directors do not approve of large establishments of this nature. What they desire is a comfortable house in a healthy situation easily accessible by rail. The dispensary has already demonstrated the necessity for its erection. This is all the more gratifying from the assurance the subscribers have that only those are admitted to its benefits who are really needy.

"The classification of the diseases treated at the dispensary affords an interesting view of the ailments prevalent among the poor. Bronchitis furnishes the largest number of cases, 15 per cent of the whole; next come atrophy, debility, diarrhoea, and other forms of deranged or defective nutrition, 13 per cent; while eczema constituted between 5 and 6 per cent; and rickets, 4 per cent. There were sent to the Hospital from the dispensary 36 medical and 30 surgical cases. The ordinary expenditure on the dispensary was £119, 8s. 7½d. This is at the rate of 4s. 6½d. per case, and 1s. 6½d. per attendance, not taking account of home visitations. This rate will become less as the work increases. The Directors are glad to

be able to report that considerable progress has been made towards the attainment of another of the fundamental objects of the Hospital, viz.:—‘To provide for the efficient instruction of students in reference to children’s diseases.’ The financial statement and abstract of the honorary treasurer’s intromissions show that the ordinary expenditure has exceeded the ordinary income by £485, 5s. 4d. This deficiency is due to the additional expenditure caused by the extended accommodation of the Hospital, the opening of the dispensary, and also to certain more than usually heavy repairs which required to be executed.”

The only portion of this Report which we would wish particularly to bring under the notice of our readers is that referring to the necessity for a Convalescent Home, under the immediate management of the Directors. We sincerely hope that before very long the Directors will get what they wish in this matter.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY—LEGISLATION FOR THE CARE OF HABITUAL DRUNKARDS.—A special meeting of the Medico-Chirurgical Society of Edinburgh was held on the evening of Wednesday, 20th February, 1889, to discuss the question of the necessity for further legislation for the care of habitual drunkards. Dr. Smith occupied the chair. Apologies were intimated from Professor Sir Douglas MacLagan, Professor Gairdner, Glasgow; Professors Muirhead and Kirkpatrick, Dr. Morton, president of the Faculty of Physicians and Surgeons, Glasgow; the Solicitor-General, the Dean of Faculty, Sir Charles Pearson, Drs. Samuel Moore and Alexander Robertson, Glasgow, and others.

The Chairman said the matter had already been brought before the Secretary for Scotland, and a bill drawn up in connection with it by Mr. Charles Morton, the late Crown Agent for Scotland, and difficulties which now seemed to present themselves more prominently for attention were those considerations and precautions in any measure being adopted. Such considerations would be recognised as those attaching to the admission of patients voluntarily or by compulsion or by committal, the detention of patients of both classes, and what powers should be conferred for this purpose, and in whom they should be vested. Professor Grainger Stewart then formally opened the debate.

Dr. Yellowlees said the Habitual Drunkards Act had proved to be an utter failure, there being only 39 or 40 cases in this vast country deriving benefit from the Act. The only differ-

ence between the Habitual Drunkards Act and the bill before them was the retention of the compulsory clause. If that clause could be added to the existing Act, it would be of some value.

The discussion was continued by Dr. Peddie, Edinburgh ; Mr. Taylor Innes, advocate ; Dr. Batty Tuke, Dr. Littlejohn, and Dr. Clouston, Morningside Asylum.

Dr. Batty Tuke was the chief critic of the proposals contained in Mr. Morton's draft Restorative Homes Bill, and urged that a more rational procedure would be to carefully remodel the licensing laws. We have considerable sympathy with Dr. Tuke's views.

Dr. Andrew Smart stated that during the last three years 1,770 patients had passed through the D. T. ward of the Royal Infirmary, and of these 1,262 were alcoholic cases. Of these, 115 were sent to asylums, their ages ranging from 19 to 60, and their period of probation in acquiring a liking for drink was on an average between 12 and 15 years.

On the motion of Professor Alexander Simpson, seconded by Dr. Littlejohn, the meeting agreed to the following resolution :—"That the society memorialise the Secretary for Scotland and the Lord-Advocate to bring the Government to initiate legislation for Scotland in the ensuing session of Parliament on the lines indicated in Mr. Charles Morton's draft Restorative Homes Bill ; or in other ways that may seem to them in their wisdom to be desirable to provide compulsory powers of committal and detention to habitual drunkards in properly regulated homes."

The meeting, which lasted three and a half hours, then terminated.

We are pleased to see that the serious question of habitual drunkenness is at length receiving the careful consideration of the members of the medical profession, who are able to speak upon the question with authority ; and we think that some of our own Societies might follow the lead of Edinburgh, and discuss the question with great advantage.

CONVERSAZIONE OF THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH.—In celebration of the anniversary of the opening of the new laboratory in Lauriston Lane, the members of the Royal College of Physicians held a conversazione on the evening of Thursday last, 21st February, in the Physicians' Hall, Queen Street. Over 1,280 invitations were issued to the medical profession, and of these fully 1,000 were accepted. The guests were received by Dr. Peel Ritchie, the president, at the entrance

to the large hall, which was handsomely decorated by an array of hot-house plants interspersed with coloured lights. For the amusement of those present, a lantern exhibition was given in the large hall, and numerous specimens of an interesting nature were shown in various rooms. Refreshments were served in the east library and reading-room upstairs, and also in the lecture room. Mr. Dambmann's band played a selection of music, and Herr Gallrein and Mr. Tom Craig also contributed to the enjoyment of the conversazione. Those who have been shown over the laboratory by Dr. Sims Woodhead, the energetic and enthusiastic superintendent, will be ready to admit that it is well worthy the admiration and pride of the Royal College of Physicians of Edinburgh.

REVIEWS.

A Treatise on Surgery: Its Principles and Practice. By T. HOLMES, M.A., Cantab. Fifth Edition, edited by T. PICKERING PICK, Surgeon to and Lecturer on Surgery at St. George's Hospital. London: Smith, Elder & Co. 1888.

IF we confess to always having held Mr. Holmes's *Treatise* in low esteem, we shall perchance lower the value of any criticisms we may offer on the present edition of that work. But we are afraid that we are not singular in regarding the former editions of it as forming one of the most unsatisfactory manuals ever placed in the hands of a student, from its want of a proper classification of diseases, its misplaced dogmatism, and the unwillingness of the author to advance with the times. Mr. Pick has, however, qualities which are lacking in Mr. Holmes. If he sometimes speaks strongly (e.g., as to the danger of suturing the patella), he honestly admits that certain very capable surgeons dissent from his views, and his additions and emendations (as far as it is possible to trace them) invariably show a marked advance on the views of his predecessor. Indeed, we are so favourably impressed with the changes made in this edition, that we are inclined materially to modify the unfavourable opinion expressed above.

The revision has been so extensive that there is scarcely a page but shows evidences of the editorial pen. The chapter on Diseases of the Eye has very properly been omitted; why

has that on the Ear not shared the same fate? Mr. Pick summarises the more important changes in the following sentences in his preface:—"Amongst the subjects in which the former edition has required the most extensive emendation and alteration are Inflammation; Wounds and their Treatment; Tumours; Diseases of the Bones and Joints; Abdominal Surgery and Intestinal Obstruction; and Diseases of the Breast. The operative treatment in reference to cerebral localisation has also been discussed as far as our present knowledge of the subject permits." That this revision might have been even more complete in many details it would not be difficult to prove. Thus, we notice that the very erroneous comment on Andrew Buchanan's lithotomy operation, contained in footnote to page 823, remains as it was in the first edition, in spite of our protest when that edition appeared. It may be news to Mr. Pick and Mr. Holmes that the Dr. Buchanan who has written on club foot and femoral aneurism is not the gentleman who devised the rectangular staff. If, however, they have thus rolled two of our distinguished Glasgow surgeons into one, they have endeavoured to compensate us by dividing Sir George Macleod into two, for he figures in the Index of Authors as *Macleod* on "Hospital Gangrene" and "Syme's Amputation," and in a separate entry below this as *MacLeod* on "Colles' Fracture."

On the much debated question of excision of joints the authors take a middle position, as far removed from Mr. Howard Marsh, on the one hand, as from Mr. G. Wright and the advocates of early incision on the other. As to excision of the hip, they say—"The answer to the question of excision will depend mainly on the prospect that we believe the patient to have of spontaneous cure; and this, again, depends on the means he has for procuring long-continued rest, with careful nursing. If this can be had, more patients, I believe, will get well than after excision, and with better limbs; but in the poor children whom we are often called upon to treat, it may be more judicious to remove the parts; and if this is to be done with any prospect of success, it should not be delayed too long." This statement thoroughly accords with our own view, and we are satisfied that where excision of the hip fails, it is generally because the surgeon has temporised too long. We therefore would suggest to Mr. Pick that excision should not be reserved for what he calls the *third stage* of the disease—namely, the stage of shortening.

In consequence of the improved forms of ligature now in use and of their being rendered aseptic, acupressure has fallen

into complete desuetude, and we do not see why students should be expected to show a knowledge of the mysteries of "circumclulsion," "torsoclusion," and "retroclulsion." We would also gladly see excised the paragraph describing Maisonneuve's "*cauterisation en flèches*," for the method is about as painful, dirty, and ineffective a way of treating enlarged glands, as has been devised.

We cannot, of course, expect that all the little modifications in surgical treatment suggested by Glasgow surgeons should receive mention in a work of this scope; but we are a little surprised to find no description of Dr. Macewen's operation for the radical cure of hernia, and no mention of his name in connection with cerebral surgery.

The description of wounds of the arteries of the palm and their treatment shows no advance on the previous edition; indeed, we doubt if a word has been changed. Now, we cannot understand why such injuries should not be treated as wounds of arteries elsewhere are treated—namely, by cutting down upon the artery and ligaturing the cut ends. We have practised this with success in wounds involving the superficial arch, and in others where the deep arch was divided, and in no instance was there the difficulty attending the operation such as Mr. Holmes anticipates. It seems to us that direct pressure often fails, and still more often causes injury to the neighbouring tissues, while the ligature of the radial and ulnar arteries or of the brachial is as unnecessary as it often is futile.

While congratulating Mr. Pick on the extensive changes he has wrought in this volume, we think there is room for still more radical changes in subsequent editions.

On the Surgery of the Knee-joint, and the Responsibility placed on the Physician and General Practitioner by the Modern Progress of Surgery; being the Inaugural and Retiring Presidential Addresses delivered before the West London Medico-Chirurgical Society on October 7th, 1877, and May 4th, 1888, respectively. By C. B. KEETLEY, F.R.C.S. London: Baillière, Tindall, & Cox.

THE first of the addresses contained in this little book may be fitly described as "a glorification of antiseptic surgery in general, and of Mr. C. B. Keetley in particular." It is written in a high ecstatic strain, suggestive of supreme self-satisfaction; and we are afraid that this circumstance will

materially diminish its value in the eyes of many. Certainly, when Mr. Keetley tells us that "it is merely a cautious and guarded mode of speaking, and not vain boasting, when I say that I feel less fear now about opening and examining a knee-joint than I felt ten years ago about excising a fatty tumour," we feel that we are being treated to some very "tall talk," and are ready to discount unduly the really valuable remarks which follow.

As to excision of the knee, it is noteworthy that Mr. Keetley prefers the transpatellar method with which Mr. Golding Bird's name is associated, and that he sutures the patella at the end of the operation either with catgut or wire. He very properly insists on the necessity of removing everything which is diseased, whether synovial membrane, ligament, cartilage, or bone, but adds, "when the tuberculous foci have been found and thoroughly removed, not an atom of bone should be cut away except to favour drainage, or to make opposed surfaces fit." He avoids cutting the lateral ligaments of the joint if possible, but where this cannot be avoided, he carefully sutures them at the end of the operation. The cut surfaces he thoroughly washes with sublimate solution, and then dusts with dry iodoform crystals, taking care that the iodoform penetrates into every crevice and pouch. As to drainage, he reprobates the growing tendency to remove drainage tubes early, and considers that a fortnight is short enough time to leave them if the wound is aseptic, while in septic wounds they should be retained "until the knee is either ankylosed or amputated." The dressings he employs are of turf moss or wood wool, and these are put on before the Esmarch's band is removed from the limb, as he has no fear of hæmorrhage. Lastly, it should be noted that he endeavours to ensure complete fixation by the use of wire sutures, two of which are introduced, one on each side of the joint. The period his cases have remained in hospital after operation averaged two or three months.

We are glad to have so careful a report of the details of operation by one who claims so large a measure of success in excision for tuberculous joint. He does not say at what stage of the disease he considers the operation called for, but we should suppose, since he believes opening the joint to be so simple and innocuous a procedure, that he operates in the earliest stage of disease. Now, we know that such cases often recover without operation, and are inclined to ask, Does excision give a better result than fixation and other methods of expectant treatment?

The Transactions of the Medico-Chirurgical Society of Edinburgh. Volume VI, New Series, Session 1886-87; also Vol. VII, New Series, Session 1887-88. Edinburgh: Oliver & Boyd. 1888.

WE congratulate the Edinburgh Medico-Chirurgical Society on these two volumes, and on the valuable contributions to medical literature which they contain. During Session 1887-88, there was an interesting discussion on the etiology of tumours introduced by Dr. G. Sims Woodhead, Superintendent of the Royal College of Physicians Laboratory; and another on animal tuberculosis in relation to consumption in man introduced by Principal Walley of the Edinburgh Veterinary College. During the previous Session (1886-87) the Society held two special meetings to investigate the nature of the contagium of scarlet fever. Altogether the volumes are of great interest, and, on the special subjects to which we have referred, they are likely to prove of great service to succeeding investigators.

Section Cutting and Staining: A Practical Guide to the Preparation of Normal and Morbid Histological Specimens. By WALTER S. COLMAN, M.B.Lond.

THE object in view in the publication of this little book is not very apparent, for although a very good and useful epitome, so far as it goes, it contains nothing that is not equally well and often much more fully given in all the other books on the subject already before the profession.

MEETINGS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

SESSION 1888-89.

MEETING XI.—18TH JANUARY, 1889.

PROFESSOR M'CALL ANDERSON *in the Chair.*

REMARKS ON THE PULMONARY VESICULAR SOUND.

By DR. D. C. M'VAIL.

ACCEPTING the view that this sound is produced in the vesicles, Dr. M'Vail controverted the idea that it is produced,

at least in the main, by fluid veins, and argued in favour of a mode of production somewhat analogous to that of the organ-pipe sound. He held that the force with which the air enters the vesicles is insufficient to give rise to sonorous fluid veins, and that the sound is in reality more due to flutters set up by the impact of the entering air against the edges of the divisions of the air vesicles. He supported his views by various arguments, chiefly physical, but some also clinical.

Dr. Dun, among other remarks, objected to the analogy that had been drawn between the rigid organ-pipe and the constantly moving lung tissue. He believed that *Dr. M'Vail's* argument was invalidated by the fact that the analogy failed.

Dr. Middleton had listened with great pleasure to the argument so clearly set forth by *Dr. M'Vail*, but he could not accept his views. It seemed to him that in the infundibula and vesicles there was nothing analogous to the organ-pipe, and that even though flutters were set up as described, the small size of the vesicles would prevent any of them from taking on a character at all comparable to the musical note produced in the organ-pipe. Some years ago *Dr. M'Vail* had read a paper on percussion before the Society, and had there stated that the percussion note could not be produced by vibrations of air in the lungs, as the air vesicles were too small; he thought that *Dr. M'Vail's* views at that time could be quoted as refuting the views expressed to-night.

Dr. Wallace Anderson referred to the purely hypothetical character of the paper, and to its being more a physical than a medical one, and he also took exception to the analogy of the organ-pipe as drawn by *Dr. M'Vail*, insisting that in the organ-pipe a most essential part is a slit in the side to allow of the exit of air, while in the lung alveoli there was nothing in the least like this.

Dr. M'Vail, in reply, said that *Dr. Middleton* evidently did not believe that the pulmonary vesicular sound was produced in the air vesicles at all, but in the trachea or larynx. But experiments had conclusively proved that the sound is produced in the vesicles, and there are only two ways in which it can be so produced—either by fluid veins, or by the flutters, as described. Now the conditions necessary for the production of fluid veins of a sonorous character were not present, and hence he held the view he had set forth. That view was quite in harmony with what he had formerly stated as to the percussion sound; for the deep tone of that sound could never be produced in such small vesicles, although they might readily enough give rise to the soft vesicular murmur.

MEETING XII.—25TH JANUARY, 1889.

SURGICAL SECTION.

DR. M'CALL ANDERSON *in the Chair.*

I.—AMPUTATION THROUGH THE MEDIO-TARSAL ARTICULATION.

BY DR. MILROY, Kilwinning. (See page 186.)

Dr. Knox said the Society was indebted to *Dr. Milroy* for bringing up this case. As *Dr. Milroy* has said, not much favour is shown nowadays to *Chopart's* operation, or indeed to any of the partial foot amputations, though there is certainly renewed interest being taken in what may be called plastic operations upon the foot. It is not far to seek for the reason why surgeons have tabooed partial operations upon the foot. Most amputations of the foot are for disease, and we cannot do partial operations even though the disease does not affect the other bones, because it generally passes along the synovial membranes, and ends by implicating the other bones of the foot. Therefore the favourite operation is a *Syme*, because we get rid of both bone and synovial membrane. After injury there may be cases where a *Chopart* or a *Milroy* amputation may be performed, but they are rare. He agreed with *Dr. Milroy* that the preservation of the scaphoid bone in this case has been of very great service. A considerable part of the arch of the foot has been saved, and has prevented much of the eversion of the os calcis and astragalus that is so apt to occur in *Chopart*. The fear of course in this operation is that by the contraction of the tendo Achillis the stump would be tilted upon its face, and pressure be made upon the cicatrix, producing a painful stump that would require another operation at no distant date. *Dr. Milroy's* retention of the scaphoid bone in this case was a very happy thought. He had left a most useful stump, and one which no stump that he (*Dr. Knox*), had ever seen could possibly excel.

Mr. H. E. Clark said he had never done a *Chopart's* operation, but he had an opportunity of seeing one that had been done many years previously, by the late *Ebenezer Watson*. It was during the last year of *Dr. Watson's* tenure of office, and the patient had come back to ask him to amputate as the stump was so painful and troublesome, in consequence of the foot being tilted and the cicatrix presented to the ground. The great objection to a *Chopart's* amputation

is that there is so little of the foot in front of the ankle-joint as compared with what is behind it; that it is not well balanced and tends to be drawn up at the heel. In Dr. Milroy's operation this difference is not so great, but the anterior is still shorter than the posterior part, and Dr. Milroy would no doubt have been glad if he had had another half inch to counterbalance it. The retention of the anterior tibial tendon is an advantage as it acts as a sling in supporting the arch of the foot. He thought, however, this operation of limited application. Some time ago he had cases of injury of the foot in which it was possible to save part, and he had successfully used Pirogoff's amputation. In most cases the damage sustained by the foot is so extreme that we cannot get a flap the same as Dr. Milroy has got here. However, the sole is so firm, and the cicatrix so well drawn up from the line of pressure, that he is to be congratulated upon the result.

II.—CYSTIC KIDNEY REMOVED BY OPERATION.

By MR. H. E. CLARK.

Mr. H. E. Clark exhibited a specimen of cystic kidney removed by operation, and read notes of the case. (See page 177.)

Dr. Newman said he had placed two sections of this cystic kidney under the microscopes—one a low and the other a high power. In almost all parts of this kidney the uriniferous tubules are considerably dilated, and contain a quantity of granular epithelium. The dilatation of the uriniferous tubules has led to breaches in the continuity of the epithelium lining them, and over and above these changes you have the conversion of the Malpighian bodies into fibrous tufts, showing that the circulation through these has been completely obstructed. This is largely due to increase in the connective tissue, but in many cases you have cysts arising from obstruction by the epithelium. In the latter case you have the tubules blocked by tube casts and epithelium, so that he (*Dr. Newman*) had no doubt that the cysts were due to obstruction of the tubules, complicated with a fibrous tissue change which has led to compression of the tubules at certain points. It is extremely difficult to say what exactly determines cystic formation. In ordinary cases of Bright's disease you find the tubules obstructed in the whole of their course. In cases of cystic disease the obstruction is probably in the medulla, and not associated with primary changes in the glomeruli; while in ordinary cases of Bright's disease the glomeruli are implicated

to a considerable extent. In respect to what Mr. Clark has said regarding the mortality and false diagnosis, that is due largely to the fact that the diagnosis has been made without a knowledge of this disease. It is comparatively rare, and unless there is enormous distention of the kidney, generally diagnosed as something else. There is one case in the Royal Infirmary Museum where the kidney weighed 80 ounces. It could easily have been mistaken for an ovarian growth. Indeed most of the cystic kidneys have been removed by gynaecologists.

Dr. J. Lindsay Steven asked if in this case there were any specially urgent symptoms demanding an operation of this kind, because it seemed to him that even with a large kidney like this, and notwithstanding the extensive cystic degeneration, the patient might have enjoyed a measure of health, and got along pretty comfortably for a considerable period? With regard to diagnosis, which must have been very difficult, he would like to ask was there any pus in the urine which led *Dr. Robertson* to diagnose abscess of the kidney? A diagnosis of sarcoma of the kidney had been made, and he would like to know upon what grounds this opinion was arrived at, because without being positive upon the matter, it seemed to him that a tumour so large as the specimen shown originating in connection with the kidney was more likely to be of a carcinomatous nature? In connection with this point, *Dr. Steven* referred to a remarkable case of cancer of the kidney which had been shown by the President at the Pathological and Clinical Society on the 14th November, 1887, and which had been reported in full in the *Glasgow Medical Journal*, vol. xxix, p. 10.

Dr. Stirton said he was here merely for the purpose of being enlightened. He did not altogether understand from *Mr. Clark's* notes as to whether the urine had been thoroughly investigated chemically. In previous cases very much stress had been laid upon the urine as a means of diagnosis.

Mr. Clark replied. He said he was sorry that either he had not read slow enough, or the apprehension of his hearers had not been sufficiently acute to follow him. There was no urgency in the case. He told the woman that her disease was not likely to prove immediately fatal, but fatal in the end unless operated upon. As regards the urine, he distinctly stated that it had a specific gravity of 1018. The quantity rose up to 72 oz., and again fell as low as 17 oz. It had an acid reaction, was of a pale straw colour, containing a small

quantity of pus, a trace of albumen (not more than would be accounted for by the presence of pus), it contained renal epithelium, and very occasionally tube casts. It was drawn from each ureter separately, and there was no difference in the analysis of the two samples. If Dr. Steven looks up the literature of the subject, he will find there are more cases of sarcoma of the kidney than he seems to imagine. Mr. Clark stated further that he had under his care at present a patient whom he thought to be the subject of carcinoma of the kidney. The softness and rapidity of growth of the tumour made him entertain this suspicion, but there was no hæmaturia, which we generally have in carcinoma. He is leaving that patient alone in the meantime.

Dr. Stirton said, as regards the examination of the urine, he was still in doubt as to its service in diagnosis, because of course the mere presence of pus in small proportion was not uncommon in all abdominal cases, but if there had been blood or excessive albumen, or any of the other abnormal ingredients present in undue proportion, then it would have been a decided help towards diagnosis, but all that Mr. Clark has stated is not uncommon in ovarian cases with which he has had to deal.

Mr. H. E. Clark replied. He said as to the diagnosis of the case not being ovarian was quite decided apart from the examination of the urine. The most important question as regards operation was whether the other kidney was affected, and his remarks had consequently been chiefly directed to that point.

III.—NOTES OF A CASE OF PYONEPHROSIS.

By DR. D. N. KNOX.

Dr. D. N. Knox read notes of a case of pyonephrosis, in which nephrectomy was successfully performed.

The patient, a female aged 38 years, had not enjoyed good health for about eight years, but had only complained of difficulty and pain in micturition for twelve months. She was admitted to the Royal Infirmary on 15th June, 1887, suffering from a tumour in left lumbar region, frequency of micturition, and passing considerable quantities of pus. There was a history of frequent attacks of feverishness previous to admission, but on admission her temperature was normal. The tumour was about the size of a child's head, and movable with the position of the patient. By catheterising the ureters, the urine from right kidney was found to be healthy, and free

from pus; that from left contained pus, and was acid in reaction. No tube casts were found. The quantity of urine passed in 24 hours varied from about 16 to 43 oz. The specific gravity was 1025. The operation of removal was performed on 6th July, and lasted three-quarters of an hour. Ether was the anæsthetic. The kidney was easily reached by a lumbar incision, beginning at lower border of last rib, and directed downwards and curving outwards. The kidney was found to be a mass of abscess cavities of varying size. Some of them were opened and evacuated, and the organ separated from its capsule and removed. This was effected with some difficulty, as the kidney was over seven inches in length, and extended considerably upwards beneath the costal margin. The pedicle was tied with sterilised silk, and was found to be largely composed of connective tissue, the vessels being much reduced in size. The patient speedily recovered from the shock of the operation. The temperature on the evening of operation was 101.6° F. and the pulse 124. The quantity of urine passed during the first 24 hours was 16 oz., and this rapidly increased. At first it contained pus and albumen, but by the third day these entirely disappeared, and were replaced by amorphous urates. By the end of the first week the temperature became normal, and the urine secreted amounted to over 40 oz. Little more need be said as to the patient's progress, except that it was uninterrupted. She left the hospital on 12th August, and returned to her home. Her husband wrote on 5th July, 1888—a year after the operation—to say that his wife continues to enjoy the best of health.

Dr. McCall Anderson thought that the duration of the operation in abdominal surgery was most important. He had seen abdominal operations which lasted for three hours, and it had struck him that not sufficient care had been exercised to keep the patient warm during the time, and that the shock from the operation must have been greatly aggravated by this.

Dr. Newman said that this was in marked contrast with the other case. Here there was absolutely no trace of the normal structure of the kidney; the cyst wall is composed of inflammatory tissue; all the renal tissue, except the blood-vessels, is quite destroyed.

Dr. J. Lindsay Steven said he did not wish to say anything about the surgical aspects of the case, except that he had no doubt whatever that in the present instance the patient's life had been saved by the operation. He would like, however, to make a remark, which had been borne in upon him from his pathological experience; it was this, that he had no doubt that

cases of this kind under certain circumstances might undergo what was practically a natural cure. He had come across kidneys very similar to the specimen shown to the Society, which had caused apparently little disturbance during life, and which evidently were in a quiescent condition at the time of death. Many of the cases of kidneys which were converted into multilocular cysts filled with pultaceous material, must have originated as abscesses, which had dried up. We should therefore remember that Nature sometimes effects cures in these cases.

Mr. H. E. Clark said that in this case the kidney was functionally useless, and it was better removed. He did not think that the lumbar incision was at all a dangerous operation. In his first case of nephrectomy, presented to the Society two years ago, the patient lived two years after the operation, and died of tuberculosis of the lung. After the operation, she got better, put on weight, and had a very comfortable twelve months, but after that she began to show signs of tuberculosis.

Dr. Newman said (in reply to *Dr. Lindsay Steven*) that in some cases of this disease you have spontaneous cure, but not in a kidney of this size. Cases which go on to cure exhibit caseous or chalky masses, but, on the other hand, from long-continued suppuration, you are most likely to have amyloid disease in other organs.

MEETING XIII.—1ST FEBRUARY, 1889.

PATHOLOGICAL SECTION.

I.—CASE WITH NEARLY COMPLETE ABSENCE OF BOTH AURICLES AND VARIOUS CRANIAL DEFECTS.

BY DR. ALEX. ROBERTSON.

THIS, he said, was the third case of the kind which he could recall in his experience. One of these, the late *Dr. Allen Thomson* took great interest in, when he (*Dr. Robertson*) was house surgeon in the Royal Infirmary, and one since that he had only incidentally seen. These cases are rare. This patient (*E. T.*), 27 years of age, has the following congenital deformities:—There is an absence of the cartilaginous part of both ears, but there is an irregular ridge of integument which represents the auricle. There is no meatus, and apparently

no cartilaginous canal, but at the point where the meatus would pass into the bone, there is an irregular—somewhat circular—bony elevation, which may perhaps lead into the bony canal, but of that he would not be quite sure. In addition to that defect, there is a considerable hollow or depression in both sides behind the ears, more marked on the right side. The mastoid process is much smaller than it ought to be, particularly the right one. Hearing is present, though defective. She can also speak a little, showing by her answers that she hears what is said to her. She is defective in intellect, being of rather a low degree of imbecility, but is not idiotic. She is of cleanly habits, and is quite easily managed and controlled. As regards her other senses, sight, taste, smell, and general sensation are all correct so far as has been observed. The upper part of the head is not formed badly, but when we come to examine the jaws there are obvious defects. The upper jaw projects very markedly, and the front teeth are directed somewhat forwards. The lower jaw is very short and defective. It measures from meatus to meatus, passing round the chin, $8\frac{1}{2}$ inches. The normal measurement in women about the same age and size is from 10 to 11 inches. Besides these defects of the jaws, her palate is high arched, and very narrow from side to side, indicative of narrow base of skull—a condition common in many idiots. Her body otherwise is fairly well formed; no defects in arms, legs, or pelvis.

Dr. Barr said that as regards the aural aspects of this case of malformation, there is the very important question as to the amount of hearing possessed by this patient. It is obvious that with such intellectual defects as we find here, it is impossible to get anything like exact information as to the hearing. It is especially difficult to get results as to the state of the bone conduction. However, it seems clear, from the observations of the attendants and his own (*Dr. Barr's*), that there is a considerable amount of hearing power, and this coincides with nearly all the other cases of the kind reported. In every one of them there has been a surprising degree of hearing power. For example, in the three cases narrated by the late *Dr. Allen Thomson*, published in 1847, every one of the three had such a degree of hearing power that moderately loud speech was distinctly heard. In another case observed by *Dr. Barr* some time ago of a little child, in whom the external auditory canals were absent, the hearing was undoubtedly fairly good, and ultimately speech was acquired by the child. These cases and others indicate that in such

forms of malformation the labyrinthine structures are intact, or nearly so. It is a curious fact that in deaf mutes we rarely find any malformation of the middle or external ear. Not one of the many deaf mutes which have come under the observation of Dr. Barr had any malformation of the conducting structures; but no doubt in many of these there was malformation of the labyrinthine structures. Probably the explanation of this is to be found in the mode of development, which in the labyrinth is altogether distinct from that in the external and middle ears. The labyrinth arises from a slight depression upon the surface—in the epiblast—which, by a process of involution, forms a closed vesicle, which gradually penetrates into the deep tissues at the base of the cranium, and in that position the simple vesicle gradually evolves into the complex cavities of the labyrinth; while the conducting parts, the auricles, external auditory canals, and tympano-Eustachian canals have their origin in the first visceral or mandibular arch, and first visceral or hyo-mandibular cleft—an origin and mode of development quite distinct from that of the labyrinth. These facts explain the remarkable fact already mentioned, that we seldom find malformations of the labyrinth associated with malformations of the external structures, and *vice versa*. In a case of this kind there may be said to be to some extent a reversion to the form found in fishes, in which there is no external or middle ear. Underneath the skin occupying the position usually occupied by the orifice of the external auditory canal there is probably a rudimentary canal, and also a rudimentary tympanic cavity, through which sonorous vibrations are able to pass to the labyrinthine cavities. This case also confirms the fact that it is very rare to have entire absence of the auricle, there being generally a rudimentary part, as in this case. There was no opportunity to practise rhinoscopy, and therefore the condition of the Eustachian tubes, so far as seen by the naso-pharynx, could not be determined.

Dr. *M'Vail* considered it was most important to know if any vibrations passed through the Eustachian tube, or if sound was conducted wholly by bone.

Mr. *Maylard* said he thought that the malformation was limited entirely to the first post-oral arch, and that as the external canal is so slightly developed, it is extremely probable that the internal one, the Eustachian tube, is probably obliterated too.

Dr. *Knox* suggested that under these circumstances the ossicles would not be developed either.

II.—SPECIMENS OF THE *STRONGYLUS MICRURUS*
(CATTLE LUNG WORM).

By DR. MILROY, Kilwinning.

In showing specimens of the *Strongylus micrurus* (cattle lung worm) under a series of microscopes, and also sections of diseased lung produced by the worm, Dr. Milroy made the following remarks:—

Dr. Clifford Albutt, in his address in medicine to the members of the British Association in August last, said “from veterinary science we are drawing new and valuable knowledge, and shall draw more and more benefit from it. We have made a minute clinical study of human nosology; perhaps, indeed, no extensive discoveries remain to be added to this field of research. Nearly all remains to be done in tracing the homologies of disease throughout the animal and vegetable worlds.” This, then, gentlemen, is the only excuse which I will make in bringing before you to-night a disease, as yet peculiar to cattle, but which may one day become common in man.

You are all aware that the summer of 1887 was very warm, and in the country water was scarce. A farmer who lived close by Kilwinning kept a herd of calves in a holm, in the centre of which holm was a shallow pool of water. The calves were driven here by the heat, and gradually converted it into a large puddle hole, or mixture of water and mud. About this time the calves became ill, and the principal symptom of that illness was a peculiar husky cough. This husky cough gives the name to the disease. The farmers call it “the husk” or “hoose.” The farmer who owned this herd of calves, one day asked my assistant when he was passing to take a look at the calves. He said that the husk was killing them, and that he might try his hand on them. He also explained that the cough was due to a worm in the lungs. Dr. Gage readily assented to do something for them. The weakest one of the herd was taken, and into the trachea of this animal he injected a mixture of 3 dr. of chloroform and 3 dr. of carbolic acid. The effect was almost instantaneous, for the animal staggered a few steps, coughed, and dropped down dead. The farmer was immensely pleased with the decided effect of the drug. He asked him to try again. This time he took only half the dose, and selected a stronger animal. The result of this injection was a terrible fit of coughing. From this time the animal gradually recovered. The others were treated in the same manner with similar results.

I understand that the treatment generally used by veterinary surgeons is the inhalation of turpentine and savin, combined with the internal administration of tonics. I got part of one of the lungs of the dead calf. The tubes were full of white worms, so matted together that it was with the greatest difficulty I managed to disentangle the whole ones. The larger bronchi had the appearance as if they had been stuffed with white thread. These two worms I show under the microscope. They are females, about an inch in length; the male is rather shorter. This worm is a nematode, and the name given to it is *Strongylus micrurus*. Before it can live in the bronchial tubes of the calf it has to pass through at least one intermediary host, and this host is generally considered to be the ordinary earth worm. The uterus of such a worm has been calculated to contain at least 10,000 eggs. These eggs are hatched on the moist warm earth—the mud of such a puddle hole as was in the centre of this field being particularly favourable for this process. The size of the egg, as given by Cobold, is about $\frac{1}{300}$ part of an inch in length. After the embryo has burst its shell it is swallowed by the earth worm, when rapid changes begin to take place. The embryo when swallowed measures about $\frac{1}{10}$ of an inch in length, and has no markings of any kind, but when it is cast off in the fæces of the worm it measures $\frac{1}{6}$ of an inch, and has then a buccal tube and an intestinal tract. As yet it has no reproductive organs. This sexually immature embryo is now deposited on a blade of grass, where it undergoes further development, as reproductive organs soon begin to appear. If this blade of grass be placed under the microscope, and the embryo moistened, it soon moves out of the field as if it were sculled along. This embryo is now sexually mature, and at this period of its life it is swallowed by the calf, in whose bronchial tubes it spends the remainder of its days. When in the bronchial tube it sets up great irritation, which strips off the epithelium and causes a tremendous migration of round cells into the walls of the tubes and vesicular spaces, in short, it produces a broncho-pneumonia from which the animal ultimately dies. This is a short epitome of nearly all that is known about this worm, and any of us may see that in its larval state it may any day be transferred from the kitchen garden to our own bronchial tubes. Although it is only a calf worm, it has not been proved that it cannot live in human mucus. This, then, gentlemen, is my reason for introducing this worm to your consideration to-night.

Dr. Dalziel asked if any worms were found in the lung substance apart from the bronchi.

Dr. Workman said that some years ago, when examining some frogs, he found an immense number of worms in the lungs. As frogs do not eat grass, their presence in this situation could not be accounted for as in *Dr. Milroy's* case.

Dr. Milroy replied. He had found the eggs and also some worms in the arteries, but he believed they must have travelled there *post-mortem*. These worms were very easily destroyed, even at a low temperature; want of moisture kills them, and also a slight elevation of temperature, so that he is not surprised at chloroform and carbolic acid killing them. He had no evidence of their reaching the smaller bronchial tubes. They are found more in the larger tubes, but the inflammation which they produce extends throughout the whole of the lung; the tubes seemed to be blocked up with cells. He thought the inhalation of chloroform and carbolic acid would be all that would be required, the pneumonic condition being a secondary effect. The disease is generally treated with turpentine and savine, and inhalations of chlorine. Worms of the same kind have been found in the bronchial tubes of man. *Cobbold* found that they could live in human mucus.

III.—OLD INTUSSUSCEPTION OF THE BOWEL UNDERGOING SPONTANEOUS CURE.

BY DR. D. J. MACKINTOSH.

Dr. D. J. Mackintosh (Belvidere) exhibited a specimen of old intussusception of the bowel undergoing spontaneous cure, and from the same case a fistulous opening between transverse colon and stomach, and between jejunum and transverse colon.

The specimen presented was taken from a case admitted to Belvidere on the evening of 11th December, 1888, supposed to be suffering from enteric fever. Patient was a little girl aged nine years, and no history could be got except from herself. She stated that her illness began a fortnight before admission with headache and pain in abdomen; bowels were loose when her illness began, but afterwards regular.

On admission the child was very much emaciated, and there was no rash or spots on skin. Tongue was clean, and rather glazed towards centre.

There was no undue distention or retraction of abdomen, but when pressure was applied in umbilical region, patient complained of great pain. The temperature was 98° and the pulse 134, small, but regular.

On the following day (12th December), the temperature in the morning was 97.8° and in the evening 98.4° . During the night patient vomited a large quantity of yellowish fluid, which had a faecal odour. Bowels had been moved three times since admission; the motions were scanty, each containing mucus and blood, with a small quantity of liquid faeces. There was no distention of abdomen, but pain was still complained of in umbilical region; patient vomited again in the afternoon, and the vomited matter had the same character. On examining the abdomen in the evening, shortly after the patient had vomited, a hard tumour was felt near centre of transverse colon about the size of a hen's egg; previously this had been covered by distended stomach. We tried to give an enema, but nothing was retained, thinking this might be due to the child straining; a little chloroform was administered, and the enema again attempted, but with the same result. I made an examination, per rectum, with my finger, but could feel no obstruction. I afterwards attempted to pass a rectal bougie, but could not introduce it more than four inches.

The following day (13th December), I asked Dr. Allan to see the case in consultation, and at the time put a note to the following effect in the Journal. "I think the question of enteric fever may be put aside. The diagnosis seems to lie between an intussusception and some fistulous opening into stomach. The history is very indefinite, but the points in favour of intussusception are the greater liability of children to this affection, the presence of faecal vomiting, the fact of the enema not being retained under chloroform, and the presence of the tumour in the region of the colon. On the other hand, if intussusception has taken place, one would expect some distention of the bowel behind the obstruction, this may be a chronic condition, and only now become completely obstructed."

Dr. Allan agreed in the main as regards diagnosis, and suggested poulticing of abdomen and administration of opium.

On the following day (13th December) the temperature was still normal, and there was no fresh development, but the faecal vomiting still continued at intervals.

The following morning, 14th December, the temperature rose to 102.4° from 8.30 A.M. till death; vomiting was persistent.

Death occurred at 1.55 P.M., and a *post-mortem* examination was made 24 hours afterwards.

The body was extremely emaciated, but the only points of interest were connected with the abdomen. On opening into

the abdominal cavity, the stomach was found to be moderately distended and filled with yellowish fluid having a faecal odour, the mesenteric glands were found to be enlarged, and a hard mass about the size of a hen's egg could be felt in centre of transverse colon. The whole of the small intestine was diminished in calibre, and a loop was attached by firm adhesions to the abdominal wall in region of left kidney, although not causing any obstruction or local change in the calibre of the gut.

The alimentary canal from lower end of oesophagus to rectum was removed *en masse*, the mesentery and omentum being detached as much as possible without destroying the relationship of parts.

The result of the detailed examination is as follows:—On commencing to slit up the bowel from its lower end there is found 4 inches from anus a polypoid growth with a pedicle $\frac{1}{2}$ inch in length. Immediately above this, for about $4\frac{1}{2}$ inches, the lumen of the gut is very considerably narrowed, in one part, indeed, admitting little more than an ordinary probe. In this constricted portion the intestinal wall is much thickened, and on being opened up the internal surface presents a villous appearance, the villi are larger than those usually seen in the small intestine, their extremities and the polypus being distinctly necrosed. Proceeding upwards the succeeding $7\frac{1}{2}$ inches of colon present a normal appearance. Immediately above this a second thickened constricted portion is met with, which presents a similar villous appearance to that already described. In this thickened portion there are found two fistulous openings, one communicating with a loop of jejunum and admitting a No. 6 catheter, the other communicating directly with the stomach. Continuing to the right in the situation of the hepatic flexure, there is found a hard mass adherent to the under surface of the liver, which proved to be the point of invagination, the two serous surfaces of bowel being inseparable. I may mention that the patient was in the Western Infirmary in 1883, suffering from obscure abdominal symptoms, but at that time there was no evidence of intussusception having taken place. From the appearances we now find present, it is a question whether the intussusception was due to peritonitic adhesions contracted during that illness or simply due to the polypus pure and simple.

Mr. Maylard remarked on the interesting nature of the specimen, but did not think the polypus had any influence in the production of the invagination, as if it had it would have been dragged down into the intussusception.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

SESSION 1888-89.

EXTRA MEETING II.—28TH JANUARY. 1889.

The President, PROFESSOR GAIRDNER, in the Chair.

EXHIBITION OF SPECIMENS ILLUSTRATIVE OF HEALING AND HEALED PATHOLOGICAL LESIONS.

LIST OF EXHIBITORS.

Professor Cleland, Dr. Joseph Coats, Professor Gairdner, Dr. David Newman, Dr. William Russell (Edinburgh), Dr. G. Sims Woodhead (Edinburgh).

The following is a brief synopsis of the specimens shown at the second extra meeting of the Society :—

GROUP I.

Healing of Pneumothorax and Empyema.

1. Calcareous mass attached to bits of two or three ribs—a cured empyema. 2. Empyema ; mostly healed with calcareous masses. Death mostly from diarrhoea. 3. Partial healing of pneumothorax. 4. Calcareous mass from pleura in empyema.

GROUP II.

Compensatory or Restorative New Formation in Organs to Supply Deficiencies resulting from Atrophy or Loss of Substance.

1. A specimen of congenital (?) atelectasis. 2. Hypertrophied heart of above case (1). 3 and 4. Lesions of liver and absence of right kidney with compensatory hypertrophy of left kidney.

GROUP III.

Fœtal Restorations, as after Spontaneous Amputations of Limbs in Utero.

1. Specimen of a cast of intra-uterine amputation. The other arm was similar.

GROUP IV.

*Healing of Aneurisms and of Vascular Obstruction—
Thrombosis, Embolism, &c.*

1. Aorta with three aneurisms: two small ones, which are filled with firm laminated clot, and a larger one occupied by a looser laminated clot. The latter caused death by rupture into the trachea, while the others have become obliterated by a firm coagulum. 2. Aneurism of the abdominal aorta occupied by a firm laminated clot. 3. Aneurism of Sylvian artery mostly consolidated. Death was from hæmorrhage. 4. Healed embolic lesion of kidney. 5. Large mass of laminated clot from the interior of an aortic aneurism. 6. Aneurism in wall of the heart near the apex of the left ventricle showing the healing process. 7. A fringe of perfectly organised connective tissue forming what may have been at one time a localised adhesion of the pericardium. A corresponding patch of roughened lymph was found on the opposite surface, and the probabilities are that the band had been torn across by the movements of the heart. There was no history of any inconvenience from this condition. 8. Laminated clot in aneurism of aorta.

GROUP V.

Healing of Lesions in Phthisis, especially of large Cavities.

1. Enormous cavity healed and simulating pneumothorax in its physical signs. 2. Cicatrix in lung and on pleural surface. 3. Healing cavities in lung. 4. Cicatrices on pleural surfaces opposite healed cavity. 5. Adhesion to diaphragm, calcified. 6. Pulmonary cicatrix in extreme apex, with cretaceous deposits and abundant carbonaceous pigment. Suspended by the firmly adherent pleura. Probably an extinct and completely healed tubercular lesion. 7. An encysted mass of extinct, probably tubercular, deposit in lung. 8. An obsolete lesion in a gland attached to the outer surface of the left bronchus. Sinus leading into the interior of the bronchus. 9. A vast excavation extending from apex to base of lung. Would probably have given most of the clinical and physical signs of pneumothorax. 10. Extinct tubercle converted into semicretaceous masses, with much carbonaceous pigment, surrounding a small irregular excavation. 11. Cavity in lung with a bronchial tube opening into it. One portion of the cavity (near the bronchus) lined with a well formed membrane, another with ulceration still in process.

GROUP VI.

Healing of Ulceration, &c., in Stomach, Intestinal Canal, &c.

1. Healed enteric ulcer, showing contraction and healing of Peyer's patch. The patient died of phthisis four years after recovering from enteric fever. 2. Healed enteric ulcer; patient suffered from enteric fever eight years prior to death from typhus fever. 3. Intestinal cicatrices. 4. Healed ulcer in ileum, due to typhoid fever. The clinical history was complete; the patient, a servant girl, passed through a well marked attack of enteric fever without any remarkable complication, her case being recorded in the chapter on the subject in Dr. Gairdner's *Clinical Medicine*. A year later, she was seized with acute pneumonia, and died. The preparation should be viewed by transmitted as well as reflected light. The two ulcers in a Peyer's patch are seen to be completely healed, but to have left the intestine thin, and the glandular tissue of the Peyer's patch destroyed over the whole area of the cicatrices. 5. Gastric ulcers, of the chronic perforating kind. In the upper perforation is a completely healed ulcer with a somewhat puckered cicatrix. In the lower preparation there are several ulcers, some of them undergoing repair, while one, at the lowest part of the jar, has perforated. 6. Cretaceous cicatrix of extinct lesion in liver, which may have been a gumma. 7. A small cancerous mass in liver, showing the tendency to repair by caseation, and also amyloid formation both in the liver tissue and in the deposit. 8. Two small globular masses in liver, representing obsolete lesions of unknown character—perhaps syphilitic. 9. A calcareous mass in the posterior part of an old lady's liver—the healing of long past abscess or hydatid. 10. Syphilitic cicatrices in liver.

GROUP VII.

Miscellaneous Specimens of Healing and Healed Lesions.

1. Cystic disease of one kidney practically in abeyance. Death from a recent cerebral lesion. (Hæmorrhage.) 2 and 3. Suppurative changes in both kidneys, healed in one, progressive in the other, the result of tubercular disease, beginning in the testicle and extending to the bladder and thence to the kidneys. 4. Perinephric abscess repaired in part. 5. Calcified myoma of uterus. 6. Collapsed parovarian cyst. Spontaneously healed and inactive. Death from Bright's disease. Interesting clinical history. 7. Hydatid cyst of kidney obsolete and filled with membrane and pultaceous

matter. 8. Pieces of membrane from the foregoing (7). 9. Collapsed and obsolete echinococcus cyst in liver. 10. Kidney occupied by calcareous or other obsolete deposit, the renal tissue represented only by innumerable small, almost microscopic cysts. The opposite kidney was enlarged but otherwise healthy, and there was no clinical history of active disease. 11. Splenic peritonitis converted into a firm capsule of thickened peritoneum investing nearly the entire organ. 12. Healed tubercular peritonitis.

In addition to the above, a large series of mounted sections illustrative of the processes of granulation and cicatrisation were exhibited.

MEETING V.—11TH FEBRUARY, 1889.

The President, PROFESSOR GAIRDNER, in the Chair.

I.—CASE OF PECULIAR DEFORMITY FOLLOWING DISLOCATION OF THE HIP.

BY PROFESSOR GEORGE BUCHANAN.

Professor George Buchanan showed a boy aged 12 years, who had a dislocation of the head of the right femur on to the dorsum of the ilium, with the patella looking straight forwards and no turning inwards of the toes. The history was very obscure, but it had been elicited that three years ago he fell and injured his right leg and lay in bed for some weeks. Since then the deformity had gradually set in. The femur is rickety, and Professor Buchanan conjectures that torsion had taken place after the injury while the bone was soft.

II.—PRIMARY TUBERCULOSIS OF THE KIDNEY WITH OBSTRUCTION OF THE URETER AND SECONDARY ULCERATION OF THE BLADDER.

BY SAMSON GEMMELL, M.D., AND DAVID NEWMAN, M.D.

G. L., æt. 18, admitted 5th November, 1888, from Mr. Quarrier's Home, in James Morrison Street, complaining of a "sore chest," persistent cough, and "a weakness of his bladder." He was always a healthy boy till about three years ago, when he began to be troubled with frequent micturition. He was admitted to the Glasgow Royal Infirmary at that time, and treated in Ward XXIV for about twelve weeks. The notes of that date (September, 1885), bear that he had pain at the end

of the penis before micturition and for some time after, and had frequent desire to pass water. He had no pain elsewhere. He had noticed blood on one or two occasions at the end of micturition, but never passed gravel. The urine was of specific gravity 1005, acid, contained no albumen, but deposited pus. Pus and epithelial cells were seen under the microscope. He was sounded for stone, but no calculus was discovered; and the diagnosis formulated was "strumous disease of the bladder." He was dismissed 25th January, 1886, much improved, but still having some pain in the penis during micturition, and under the necessity of passing water every two hours at least.

He remained much in this condition up till July of last year when, with a number of other boys from Quarrier's Homes, he went into camp at Ettrick Bay. The weather was cold and wet, and he caught a severe chill, out of which developed the cough of which he now complains. Since this time he has been unable for constant work of any kind, but he did not take to bed till a fortnight before admission to hospital. The urination now became very frequent and painful, and he really came to the hospital to be treated for this in a surgical ward, but at the receiving-room he was seen to be so weak, and to be labouring under so much dyspnoea and cough, that he was at once admitted to the medical house.

On admission his condition is noted as being one of great weakness with much dyspnoea. He sits up in bed with flushed face, breathing with obvious difficulty. Temperature, 104.4° F.; pulse 120, small and weak; respirations 40. The skin is hot and dry, and he says he seldom perspires, and never profusely. He has much cough, but little expectoration. Urine is pale yellow, acid; specific gravity, 1008; contains a distinct trace of albumen, but no blood. Microscopically, pus cells (26 to 30), are seen in the field.

Physical examination revealed dulness at both apices, especially behind and on the left side, with tubularity of the respiration, and much coarse liquid râle in all parts of the chest.

The case was regarded as one of rapidly advancing tuberculosis, and it went speedily to the bad. For the first three days after admission the temperature ranged from 103° to 104.4° , but after the patient began to have Niemeyer's pills and antifebrin, it exhibited frequent remissions, sometimes indeed sinking quite to the normal level. It had scarcely subsided, however, when it again began to rise. The remission was of short duration and obviously due to the antifebrin.

Typhoid symptoms soon developed; the tongue grew dry

and brown, the pulse very rapid and small; he became somewhat delirious, and during the last days carphology and floccitation were present. He died on 20th November after a residence of fifteen days.

His urine was repeatedly examined and was always found to be of low specific gravity, with a slight pus deposit. His lumbar regions were carefully explored, but nothing very abnormal was discovered in either renal region. Dr. Newman will speak of the state of the kidneys, but I may add that at the *post-mortem* it is noted "both lungs are completely consolidated, being infiltrated with miliary tubercles and small tubercular masses which have undergone caseation. In both apices softening has taken place, and several small cavities exist, all of them of recent formation. There are a few miliary tubercles in the liver."

The *post-mortem* examination was held on 27th November, 1888, and the following is the report, by Dr. David Newman:—

Summary of post-mortem examination.—Tubercular disease of left kidney, with obstruction of the ureter. Tubercular ulceration of bladder. Disseminated tuberculosis in both lungs and in liver. Compensatory hypertrophy of right kidney. Body moderately well nourished.

Chest.—Both lungs are slightly adherent, especially posteriorly. The adhesions are of recent formation, some fibrous, others soft and spongy. There is no fluid in the pleuræ. Both lungs are completely consolidated, being infiltrated by miliary tubercles and small tubercular masses, which have undergone caseation. In both apices, softening has taken place and several small cavities formed, all of which are of recent formation.

Heart.—The heart is normal.

Liver.—The liver is pale in colour, partly from anæmia and partly from increase in the amount of fat, which is somewhat irregularly distributed, and gives the organ a mottled appearance. Immediately underneath the surface of the liver a few miliary tubercles are seen. These are all extremely small in size, but are very characteristic in appearance.

Spleen.—The spleen is normal.

Kidneys, Left.—The left kidney is increased in size. The surface is irregularly lobulated, and on palpation distinct fluctuation is detected. The capsule is firmly adherent, but there is no evidence of old or recent perinephritic inflammation beyond the limits of the capsule. On opening the kidney by a longitudinal incision, the whole organ is found to be con-

verted into an abscess cavity, containing yellowish-white, pultaceous material of the consistence of thick gruel. After washing away about six ounces of this material, the kidney is found to be converted into a number of saccules, communicating with one another, all of them lined by a soft pyogenic membrane. The inflammation has extended down from the left pelvis of the kidney to the ureter, the lumen of which is obstructed by tubercular thickening of the duct wall, and by caseous *débris*.

Right.—The right kidney is free from disease, but has undergone a compensatory hypertrophy, and weighs nine ounces.

Bladder.—The only change to be observed in the mucous membrane is a hyperæmia of the posterior part of the trigone, and here and there a few minute tubercular ulcers, but all of these are small and apparently of recent formation.

Microscopic examination of the solid portion of the kidney shows the renal tissue to be completely replaced by inflammatory material, mostly connective tissue, with a few small caseous masses imbedded in it. Only at one or two points were traces of uriniferous tubules or glomeruli discoverable, and even these were so much altered that, unless the tissue were known to be that of the kidney, their true nature might easily be overlooked. Immediately under the capsule of the kidney a number of small tubercular masses were seen, some of recent formation, but most of them old.

Dr. Newman remarked, in connection with this case, that from the appearances found at the *post-mortem* examination, it was very evident that the tubercular lesion in the kidney was of much older date than those found elsewhere, also that the disease, while primarily involving and completely destroying the left kidney, had induced a compensatory hypertrophy of the right kidney before the disease spread to the bladder. The mode of extension of the tubercular virus is also apparent—namely, from the left kidney down the ureter to the bladder, where a few recent tubercular ulcers were found, from which, probably, general infection took place. The tubercular lesions in the lungs and liver were so acute that it does not appear likely that infection had taken place, while there was active tubercular changes going on in the kidney. This specimen illustrates how nature may attempt a cure by causing occlusion of the ureter of the diseased kidney and compensatory hypertrophy of the organ on the opposite side. In some cases this cure becomes completed by the purulent tubercular matter becoming converted into a firm caseous or calcareous mass, which remains inert and practically harmless.

But while this favourable course is rare, it is not uncommon to find that, as in the case now before the Society, a considerable period may elapse between the establishment of the primary tubercular lesion in the kidney and the secondary formations in other organs. It is during this period that the surgeon is justified in removing the diseased kidney. If the disease has spread to the lower urinary tract or to other organs operative interference is worse than useless.

The President had seen a great number of these cases now. His impression was that the lung disease had long preceded the kidney disease, and in many cases the lung disease was obsolescent, while that in the kidney was rapidly advancing.

Mr. H. E. Clark referred to a case of tubercular disease of the kidney, which he had removed, and in which the patient died two years afterwards of pulmonary disease which could not be detected at the time of operation.

Dr. Finlayson said that he thought there were a considerable number of tubercular lesions of the kidney unassociated with any serious lesion in the lung.

Dr. Lindsay Steven remarked that he was decidedly of opinion, based upon his general experience of pathological anatomy, that localised primary tubercular disease of the kidney was not at all an uncommon condition, apart from any serious tubercular process in the lung, at least in the first instance.

The President, speaking from the clinical point of view, thought that the urinary symptoms in this case must have preceded considerably the lesion found in the urinary bladder, and described in the *post-mortem* record. It raised in his mind the question, Does a lesion in the kidney, *per se*, without bladder disease, provoke symptoms which would point to the bladder as the seat of disease? His impression was that it was not so, and he referred at some length to a case in support of this view. *Dr. Gemmell's* case, however, rather negatived this impression. He was also much interested in the temperature chart showing the effect of the antifebrin in controlling the fever. The therapeutics of antipyretics was still, however, one of the unsolved problems of medicine.

III.—SPECIMENS OF LARVÆ OF A DIPTEROUS INSECT (*ANTHOMYIA CANICULARIS*, OR *SCALARIS*) PASSED ALIVE, IN SWARMS, FROM THE BOWEL OF A MAN.

BY JAMES FINLAYSON, M.D.

Dr. Finlayson showed specimens of these larvæ, and also drawings made soon after they were passed, executed by the

late Dr. John Wilson. He likewise showed a drawing of the fully developed *Anthomyia*, copied from Meigen.

The patient was a man, about 30 years, a member of the medical profession, residing in the outskirts of a small town in the West of Scotland. His symptoms began with a feeling of general illness, accompanied by pain in the back and side, and associated with obstinate constipation, resisting the use of aloin pills taken repeatedly; but after a large draught of mineral water a copious loose motion was obtained, and it was found to be swarming with the larvæ shown, probably about thirty, moving about with great activity in this fluid motion; they seemed also very tenacious of life. This was on 13th July, 1887. For the next three days the bowels were moved repeatedly by means of croton oil, mineral water, and enemata containing turpentine; all the motions thus obtained contained the larvæ, many of them in great abundance; the later motions, however, did not contain so many of the full grown animals, but more of a smaller size. The motions with the larvæ were noticed to have a peculiar smell.

Dr. Finlayson was consulted by letter, with specimens; he advised the use of turpentine by the mouth and also by enemata, and he encouraged the patient to believe that the batch would soon be cleared out, and that no new mischief need be feared. He was called to see the patient on 20th July, as a new complexion was put on the case by the development of all the signs of a pleurisy on the right side the day before; by this time the motions had ceased for a couple of days to contain any larvæ, and only a few had been seen for a day or two before they ceased: but the well marked pleurisy made it probable that some of the symptoms—the rigors, the pains in back and side, and the general sense of illness—might have been due to the incipient pleurisy rather than the parasites found in the motions. The patient recovered in due course from the pleurisy, and no more larvæ have been seen in the motions since then. None were vomited at any time.

When the animals were first seen it was easily ascertained that they were larvæ of some kind; but Dr. Finlayson said his own knowledge of such subjects was so trifling that he could go no farther. On communicating with Dr. Murie, then librarian to the Linnean Society, he at once suggested that the larvæ were those of *Anthomyia canicularis*, and he referred to Leuckart's work where such larvæ are figured (English translation, Edin., 1886, p. 15). He likewise sent Meigen's work on dipterous insects, with its plates of *Anthomyia* in the mature form. Dr. Finlayson said he had bethought himself

at the same time of another Glasgow student, who is well known as an entomologist, and on communicating with Dr. Thomas A. Chapman, of Hereford, he also pronounced them larvæ of a dipterous insect, "almost certainly of the genus *Anthomyia*." It was evident now that the only information of a more definite character to be obtained required the rearing of the larvæ and the examination of the flies thus produced; but, unfortunately, from this point of view (although fortunately for the patient's peace of mind), the time lost in communicating with these experts and with the patient, who was at a distance, although not very great, was yet sufficient for the passage of the larvæ to have ceased so that no more living specimens could be obtained with precision.* On discussing the matter with Mr. James J. F. X. King, librarian of the Natural History Society in Glasgow, he kindly offered to submit the larvæ to one recognised as a leading authority on the genus *Anthomyia*, namely, Dr. Meade, of Bradford, who wrote:—"The larvæ which you sent me are those of either *Homalomyia* (*Anthomyia*) *scalaris*, or *H. canicularis*, Meigen."† This further opinion seemed to settle the matter, so far as it could be settled from dead larvæ.

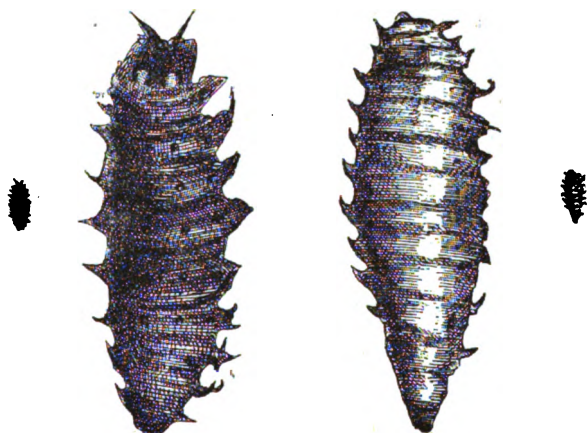
The next question was how had these animals been introduced into the body? One naturally thought of the ova being introduced along with some vegetable matter on which they might have been deposited, and as the patient had partaken of lettuce, in the summer, this might have been the medium. The *Anthomyia canicularis* and *scalaris*, however, seem to deposit their ova on rotten vegetables; and, as Dr. Meade says, breed in privies, so that it is difficult to understand how they can find entrance under any ordinary circum-

* They were present in enormous abundance in the midden into which the motions passed, and an attempt to rear some of these, which were clearly the same as the animals excreted, was subsequently made, but through some accident, in the absence of the patient during his convalescence this attempt likewise failed.

† It will be observed that these two are distinguished from other species of *Anthomyia* by having a different name assigned to them by Dr. Meade. Compare the following quotation from Westwood: *Introduction to the Modern Classification of Insects*, vol. ii (London, 1840, p. 570). See also his drawing, fig. 132, No. 7.

"The species of the genus *Anthomyia* and the allied genera undergo their transformation in rotten vegetables, or in manure, excrement, &c. . . . Bouché has very properly separated from *Anthomyia* some species, the larvæ of which have the body much depressed, narrowed towards the front, with the sides furnished with long setose filaments. To this group belong *Anthomyia canicularis* (Meigen) and *Anthomyia scalaris* (Meigen). Bouché found the larvæ of the former insect in rotten vegetables and decayed cheese, and those of the latter in human excrement." See also his *Synopsis*, p. 143.

stances into the human stomach. Dr. Meade, who says, in the letter already quoted from, that he has himself had a case of this kind in a patient, makes the important suggestion that the ova may never have been swallowed at all, but may have been deposited at the anus while the patient's bowels were being moved at a privy, and may have been taken up within the bowel, after the process of defecation was finished. In the case now narrated the patient habitually used a privy, in his garden, which had free communication with the midden adjoining it. In his case there were no symptoms referable to the stomach, and the rapid clearing out of the larvæ, after they were first seen, might favour the idea of their location in the



LARVÆ PASSED FROM THE PATIENT'S BOWELS.

(Drawn by the late Dr. John Wilson.)

Showing the dorsal aspect of one and the ventral aspect of another. Magnified $9\frac{1}{2}$ diameters.
The natural size is also shown.

lower bowel; and this case may be contrasted with some others of this class which have been recorded, where the facts pointed to the presence of the larvæ in the stomach and the course of the affection was much longer in these instances.

Other cases, more or less similar to the present, are referred to in some of the works on Entozoa, but only very shortly. Leuckart, *The Parasites of Man*, translated by Hoyle (Edin., 1886), pp. 2, 15, and 143, refers to *Anthomyia*, and gives drawings of the larvæ. Cobbold, *Entozoa* (London, 1864), p. 419, refers to the passage of larvæ. Küchenmeister, *Animal and Vegetable Parasites*, translated by Lankester (London, 1857), vol. ii, p. 95, refers to the occurrence of larvæ

of *A. canicularis* and *scalaris*, and he refers to *Wagner's Handwörterbuch*, Bd. 2, p. 684, where Siebold has a footnote to his article, "Parasiten," bearing on the larvæ of *Anthomyia canicularis*. *Quain's Dictionary of Medicine* (London, 1882), article "Oestrus," by Dr. Cobbold, has also some reference to this subject.

The most important case seems to be one reported by the Rev. Leonard Jenyns, M.A., F.L.S., in the *Transactions of the Entomological Society of London*, vol. ii (London, 1837-40), p. 152 and plate xv: "Notice of a case in which the larvæ of a dipterous insect, supposed to be the *Anthomyia canicularis*, Meigen, were expelled in large quantities from the human intestines, accompanied by a description of the same." In this case a clergyman in Cambridge, 70 years of age, experienced peculiar sensations in the epigastrium in the spring of 1836, and during the summer and autumn following he passed from the bowels "several quarts of the larvæ at intervals of some months." They were passed alive and were very active.

Dr. Bateman gives "An account of the larvæ of two species of insects discharged from the human body;" see *Edinburgh Medical and Surgical Journal*, vol. vii (Edin., 1811), p. 41; and from the plate given, one of them has since then been supposed to be the larva of *Anthomyia canicularis*. This paper of Dr. Bateman's is likewise valuable as giving many references to old cases of this class.

A "case of a patient who discharged the pupæ of the *Musca ciliaria*," by Dr. White, in the *Memoirs of the Medical Society of London*, vol. ii (London, 1794), p. 67, has also been put down to *Anthomyia*.

Westwood (*loc. cit.*) gives a reference to the *Medizin. Correspondenzblatt* for 1832 for an account of the occurrence of the larvæ of *Anthomyia scalaris* in man, but this reference has not been verified.

The Rev. F. W. Hope, in the *Transactions of the Entomological Society*, vol. ii (London, 1837-40), p. 256, plate xxii, gives an elaborate paper, with tables, "On the insects and their larvæ occasionally found in the human body." See also Hope's tables in the *London Medical Gazette* (London, 1837), tables iv, v, vi, "Dipteral larvæ producing Myasis," pp. 207, 255, 287. (He is there called Rev. J. F. Hope.)

The most extraordinary case bearing on this subject is one reported by Dr. Pickels in the *Transactions of the Association of Fellows and Licentiates of the King's and Queen's College of Physicians in Ireland*, vol. iv (Dublin, 1824), p. 189, and vol. v (Dublin, 1828), p. 171. "Case of a young woman who

has discharged, and continues to discharge, from the stomach a number of insects in different stages of their existence." The larvæ, &c., were chiefly of those of Coleopterous insects, but some larvæ of a dipterous insect were also found (not the *Anthomyia*). This case (Mary Riordan), is a most important one, and unless the facts had been so well ascertained they could scarcely have been credited by entomologists.

A case by Dr. Samuel Crumpe in the *Transactions of the Royal Irish Academy*, vol. vi (Dublin, 1797), p. 57, may also be mentioned, although not bearing directly on this case.

The entry in the *Catalogue of the Contents of the Museum of the Royal College of Surgeons in London*, part iv, fasc. 1 (London, 1830), p. 144 (entry 609 D), is supposed to refer to *Anthomyia*. "Larvæ . . . which were voided per anum (hominis)."

IV.—CASES OF CARCINOMA, MELANOTIC SARCOMA, AND FIBROMA OF THE ORBIT.

By THOMAS REID, M.D.

(1) *Case of Carcinoma of the Orbit.*

T. W., æt. 76, hemiplegic, was first seen in consultation in the autumn of 1887 with Dr. Harrison, on account of what at first sight seemed to be a rodent ulcer of the eyelid of the left side, involving the whole of lower lid, the inner canthus, and inner third of the upper lid, with the characteristic everted and rounded margin, but with this difference, that the usual excavation of the cavity of the orbit, the part opposite the ulcerated lids was filled by a solid nodulated tumour, having a smooth dry surface, which had displaced the eye upwards beneath the remaining portion of the lid, so as to cover the greater part of the cornea, and thereby interfering seriously with the vision of this the only good eye. The history of the case was as follows:—

Report by Dr. Harrison.—"T. W. died at the age of 76, 1888. Twenty-two years before his death he had an apoplectic seizure, followed by pretty complete loss of power on the left side. His arm and leg on that side were paralysed to the extent that he was entirely confined to bed for over twelve months, and it was four or five years afterwards before he was able to move about with the aid of a stick. The left side of the face was also deeply implicated, and never completely recovered. The left eye used always to water as in such cases, and little attention was paid to it. Ten years ago I was consulted about the condition of the eye. In addition to the

watering, the conjunctiva was inflamed, and the lower eyelid thickened and everted to a slight extent. Astringent lotions and protection of the eye failed to improve matters. In fact, from that time the state of affairs slowly but gradually grew worse, the lid becoming more everted, the thickening greater, and the discharge more profuse and purulent looking.

"About two years before his death the inner surface of the lid looked like red raw granulation tissue, and the lid itself was observed to be rather bound down to the lower orbital wall, and the punctum became further and further pushed downwards. The caruncle presented the same appearance as the conjunctival surface, and appeared firmly bound to it.

"The lower lid became gradually lost in the granulating mass. This, at the period of operation, 9th June, 1887, had extended down the cheek, and occupied a surface of the area of a shilling. The growth extended upwards also in front of the eyeball, pushing it upwards beneath the upper lid which now had also been deeply implicated and was immovable."

The patient being very anxious to recover the use of his only good eye, it was decided, though the patient was in very feeble health, to excise the diseased parts. Under chloroform a free incision was made over the lower margin of the orbit, when it was found that the tumour, solid and inelastic, was firmly wedged in the cavity of the orbit. Two incisions were then made, one over the middle part of the lower lid, and another at the inner canthus, passing vertically into the cavity of the orbit, and the tumour with some difficulty was removed in three pieces, including the ulcerated margin of the lids. The tumour extended as far as the optic foramen, and was firmly adherent to the sclerotic, from which it had to be carefully dissected, thereby exposing the sclerotic completely at its lower and inner side.

After the operation, the parts healed soundly in about four weeks. The upper lid now became movable and the sight satisfactory. Three or four months after, a lymphatic gland in front of the ear, which at the time of the operation was about the size of a pea, was now observed to be rapidly increasing in size and giving a good deal of pain. The swelling eventually burst and there were two or three smart attacks of hæmorrhage. At the time of his death, exactly ten months after the operation, the secondary growth was about the size of the clenched fist, with its surface raw and sloughy, having a very offensive smell. The upper lid had again become cedematous and the eyeball fixed, with just the slightest evidence of returning growths in the position of the

caruncle, but the secondary cancer of the cheek was certainly the cause of death. The cut surfaces of the tumour were smooth and shining with the firmness and appearance of cartilage. Microscopic sections were taken at various points, and showed a thick layer of effete epithelial cells covering the raw surface of the tumour, and from this layer, penetrating more or less deeply, were masses of epithelial cells, in some parts having a racemose or lobulated appearance in outline. The basis of the tumour was fibro-cellular, and at points it presented a fine connective tissue appearance, mixed with strong fibres interlacing as in fibroma. In some places the epithelial cells seemed to envelop these fibres, indicating that the epithelial cells, which were still more or less active, were of more recent origin.

(2.) *Case of Melanotic Sarcoma of the Orbit.*

R. F., æt. 73, farmer. Five or six years ago a swelling about the size of a pea was observed at the upper part of the left temporal region. This swelling gradually increased in size, and presented a black mark on its upper surface. It was painless, and freely movable upon the subjacent tissues. The first operation for its removal was performed a year ago, but a small portion of the tumour was accidentally left, and a recurrent growth appeared five months afterwards. This time the main mass of the tumour was situated below the zygoma, and the surgeon who operated stated that it had been completely removed.

Six to eight months ago a slight inflammatory redness was observed at the inner canthus of the left eye, and shortly afterwards a swelling made its appearance. This swelling was dark in colour, with dilated veins marbling its surface. It increased steadily in size, and gradually displaced the eyeball upwards and outwards. Like the tumours which appeared in the temporal region, this swelling was, up till a few weeks ago, perfectly painless; but since that time pain has been very severe, and was probably due to the dragging and stretching of the ciliary nerves from the displacement of the eyeball, which was perfectly healthy.

When first seen, in July of last year, the tumour, though small and movable, had a malignant aspect, and the history being bad, he was advised to leave it alone. In October the pain became so great that, at his urgent desire, it was decided to remove it as well as the eyeball. This was done under chloroform, and it was then found to be a melanotic sarcoma, filling completely the cavity of the orbit without capsule and

penetrating the sinuses at the apex, and seemed to be of cranial origin. The exposed bones of the cavity and the sinuses were thoroughly scraped with a spoon and a compress and bandage applied. That evening, and for about a week after, there was profuse hæmorrhage, apparently from a vessel on the floor of the orbit. The cavity of the orbit was dusted with a mixture of iodoform, tannin acid, and salicylic acid. A healthy granulation gradually filled the cavity, and the patient was dismissed apparently cured.

The conjunctival surface of the tumour was covered by a dense fibrous layer, the opacity of which completely masked the nature of the growth during life.

Under the microscope this membrane covered a densely packed cellular layer of an epithelial-like character, containing well defined cells, large nuclei and nucleoli, with an occasional pigmented cell having a clear nucleus; deeper, it consisted entirely of large pigmented cells.

(3.) *Fibroid Tumour of the Orbit.*

C. F., æt. 75, was admitted to the Glasgow Eye Infirmary on 12th December, 1888, suffering from a swelling under the outer half of right upper lid, which was first detected accidentally nine months previously, at which time it was about the size of a marble. As the tumour increased very slowly, little attention was paid to it, but during the past two months the increase has been very evident, with prominence of the upper lid. On admission, there was a distinct prominence over the outer half of the right upper lid, and on palpation a firm lobulated tumour, about the size of a walnut, was felt, passing deeply into the orbital cavity in the situation of the lacrymal gland, and freely movable under the skin and over the deeper parts of the orbit. There was no displacement of the eyeball nor double vision, as is usually the case with tumours of the lacrymal gland.

On the 15th December, under chloroform, an incision was made over the tumour parallel to the supercilium. The tumour, which was in a well defined capsule, was readily shelled out. Examination of the cavity with the finger failed to detect the lacrymal gland or any further continuation of the tumour. The wound healed by the first intention, leaving very little scar.

On examination before dismissal, a small, hard, irregularly nodulated mass could be felt deep in the orbit opposite the site of the tumour, and which seemed to be firmly adherent to the periosteum of the roof of the orbit.

Microscopic section of the tumour presented all the usual

characters of a fibroma, with a highly vascular capsule. Fibromas of the orbit are not common, and as a rule, are attached to, and seem to spring from, the periosteum. If in the present case this has been its origin, it must at an early date have been detached, probably from the nodule felt after the parts had healed and independent growth in size may have been accompanied by the vascular capsule.

DR. THOMAS REID also showed a man from whom he had recently removed a tumour about the size of a pigeon's egg, occupying the upper and inner angle of the left orbital cavity. On making microscopic sections of the tumour, it was found to consist mainly of a hyaline, structureless substance having the chemical reaction of gelatine, and having numerous loculi, which were occupied in some places with blood, and in others with protoplasmic cells, having a distinct nucleus but no cell wall.

REPORTS OF HOSPITAL AND PRIVATE PRACTICE.

GLASGOW WESTERN INFIRMARY.

REPORTED BY HUGH HIGHET, M.B., C.M.*

REPORT OF A HEALED CASE OF TUBERCULAR PERITONITIS AS SHOWN BY THE AUTOPSY TEN YEARS LATER.—[Under the care of Professor McCall Anderson.]

The patient, when a lad of 16, was admitted to the Western Infirmary, under Dr. Anderson's care, on 4th September, 1878.

The history then was that towards the end of July of the same year his abdomen began to swell uniformly, and although giving rise to but slight pain, it caused considerable distention of the abdomen.

On examination the belly was found to be moderately enlarged and firm to palpation, while here and there, upon deep pressure, distinct irregularities could be made out. Percussion gave the usual tympanitic note, save in the left iliac and lumbar regions, where an area of dull percussion extended four inches from above downwards and from before backwards. Slight tenderness, not amounting to actual pain, was elicited upon palpation, and fluctuation was absent.

* The specimens from this case were shown at the Glasgow Pathological and Clinical Society on Monday, 28th January, 1889.

The heart and liver seemed to be normal, but at the apex of the left lung, in front and behind, the percussion note was distinctly a dull one, and in the same area the respiratory murmur was feebler as compared with that in the corresponding region upon the opposite side.

The urine contained no abnormal constituents, with the exception of a few crystals of oxalate of lime.

With regard to temperature, the thermometer registered on admission 101° F., and from that date the average temperature continued for about a month at 98.6° , occasionally 99° , and rarely 98.4° in the morning, while in the evening it ranged from 100° to 102.2° . Towards the end of September it began to approach the normal in the evenings, registering, as a rule, 99.2° ; 99° , or 98.6° , while on the other hand, the morning readings showed a rise to 99° or 99.6° . From the middle of October till his dismissal on the 13th of December, the morning temperature never rose above 98.6° , while in the evening it still continued to rise to 99° or 99.4° .

Five days after admission he weighed 6 stone, 8 lbs., and by 9th December his weight had increased to 7 stone, $10\frac{1}{2}$ lbs.

The diminution in the circumference of the abdomen only amounted to 1 inch upon dismissal. He was markedly anæmic, his appetite was poor, and his bowels costive.

The treatment which was adopted in this case consisted in the administration of tinct. quinine, 1 dr. before meals, and of cod liver oil, 1 oz. after meals. Upon 4th October the quinine was replaced by the syrup. ferri phosph. co., also in drachm doses. In addition to these constitutional remedies, small fly blisters were applied weekly to the surface of the abdomen, from the week of admission till 9th December, 1888.

On dismissal, upon 13th December, the following note was made with regard to his condition:—"Since admission the patient has steadily improved, although the pallor is yet well marked. There is still some firmness to be felt over the abdomen, but the swelling is diminished, and neither pain nor tenderness is experienced in any part of the abdomen."

From that date he was entirely free from any abdominal complaint; and, except for an occasional "cold," he always enjoyed good health, till the beginning of September, 1888, when he began to complain of weakness of the legs and pain in the back. He steadily became worse, till, on 22nd September, he was readmitted to the Western Infirmary, suffering from paraplegia, pain in the back, retention of urine, and incontinence of fæces. The lower dorsal and upper lumbar spines were tender to percussion, and the temperature was

102.8° F. on admission. The lungs and other viscera appeared to be normal, except the bowels, which, as a rule, evacuated fluid stools twice daily, but not of the pea-soup character.

He improved slightly for a time, but towards the end of December, 1888, a swelling appeared to the right of the upper lumbar vertebræ. At first it was painless, and the skin over it was natural, but it gradually increased to the size of a closed hand, the skin became slightly reddened and painful, and fluctuation arose.

The abscess was opened, and drained with careful antiseptic precautions, but he died a week after the operation.

The following is the report of *post-mortem* examination:—

"A somewhat spare body. In the lumbar region there is the opening of an abscess, from which a sinus, having tubercular walls, passes up on the right side outside the arches of the vertebræ. In two places the tuberculosis exists in the inter-vertebral substance, but doubtfully in the bodies.

"*Chest*.—Ribs in a high degree calcified; heart normal; left lung somewhat firmly adherent, and adhesions oedematous; also in one or two places a fibrinous exudation, especially between the lobes. In the right pleural cavity there is a considerable quantity of turbid fluid, and the pleura is coated with soft fibrinous exudations, except at the base, where it is firmly adherent to the diaphragm.

"*Abdomen*.—The intestines are matted together by adhesions composed of a rather delicate connective tissue, and similar adhesions unite the liver and spleen to the diaphragm, and, indeed, almost obliterate the peritoneal cavity. In the midst of the adhesions occasional gritty masses are present, but these are not frequent. The stomach is firmly adherent to the liver. The spleen is buried in adhesions, and very soft on section. The liver is normal. The kidneys are considerably enlarged, and the cortical substance shows a marked mottling."

ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

EPIDEMIOLOGY.

By A. K. CHALMERS, M.D.

The Eruptive Diseases of the Teats and Udders of Cows in relation to Scarlet Fever in Man.—The disputed relationship between what is now known as the "Hendon Cow Disease," and "Milk Scarletina," forms the subject of a very exhaustive report submitted to the

Privy Council by Professor Brown, C.B. One new and not unimportant fact regarding the milk supplied to the South Marylebone and other districts during the prevalence of scarlet fever in them is embodied in the Report. While investigating the probable sources of milk contamination at Hendon, it was found that in 1885 scarlatina existed during several months of the year, and that in particular when the Marylebone outbreak occurred scarlet fever existed, during November, in some dwellings situated only 600 yards from the Hendon cow-sheds. Further, direct personal communication is proved to have existed between the infected dwellings and these cow-sheds. A boy from one of the infected families was apparently in the habit of spending his leisure time about the cow-sheds, and the father of the family also made visits to the dairy while the conditions of infection still prevailed in his house.

Leaving the subject of the original Hendon Cow Disease in 1885-86, Professor Brown discusses at length several outbreaks of a similar cow disease occurring at Hendon and elsewhere in 1887-88. Many of these outbreaks developed, as did the original Hendon affection, after the dispersion of a herd in Derbyshire, and while the disease possessed all the clinical characters of the Hendon disease of 1885, scarlatina was not found to exist among the consumers of the milk. From the standpoint of inoculative experiments, "the results of different observers are strictly in accordance, but a difference of opinion arises when the interpretation of the morbid conditions resulting from inoculation comes in question." Dr. Klein, in 1882, inoculated and fed cows and yearling heifers with diseased products from human patients with scarlatina without producing any indications of scarlatina. Professor M'Fadzean had a similar experience, and the Edinburgh Medical Chirurgical Society's experiments by Mr. Edington in 1887 were likewise negative. But when a micro-organism cultivated from the blood of scarlatinal patients was used for inoculation, the experiments were successful in producing definite morbid conditions. Dr. Klein's results were produced by inoculation with a streptococcus obtained indifferently from the blood of scarlatinal patients or the sore teats of the Hendon cows. Mr. Edington produced like results by inoculation with a bacillus—a totally different organism from Dr. Klein's—but also cultivated from the blood of patients affected with scarlatina. Similar effects were produced by Professor Crookshank by inoculating calves with matter from the ulcers of cows affected in a similar way to the Hendon cows, and similar changes resulted in calves which were allowed to suck the diseased cows from Hendon and other parts. Dr. Klein regards the morbid appearances thus produced as allied to scarlet fever in man on the one hand, and to the original Hendon cow disease on the other. Professor Crookshank points out that these morbid appearances are by no means characteristic of scarlatina, and quotes Professor Bristowe in support. He further explains that the *streptococcus scarlatinae* of Dr. Klein is a well known member of a large family of organisms, which is exactly what Dr. Klein remarks of Mr. Edington's *bacillus scarlatinae*. Indeed, it would seem that the conflicting views of the bacteriologists might be reconciled if only the name of the micro-organism could be changed. If the *streptococcus scarlatinae* of Dr. Klein could by common consent be called the *streptococcus pyogenes* as Professor Crookshank states it has been hitherto, all the obscure phenomena attendant on the introduction of this organism into the system would be explicable on a common basis.

Pleuro-Pneumonia and Tuberculosis.—The *Edinburgh Medical Journal* for January and February, 1889, contains Dr. Peele Ritchie's notes of the evidence supplied by him to the Departmental Committee of the Privy Council, which investigated the above subject last year. The aspect of the question here considered is whether bovine tuberculosis is capable of being transmitted to human beings either by the milk of the affected animal or by the consumption of their flesh. Reference is first made to the difficulty of diagnosing tubercle in its early stages in cattle. The bacillus of tubercle being recognised as the cause of the disease, both in man and cattle, most

competent authorities regard the apparent differences in the bacilli as accidental and due to differences in the media in which they are developed, and to the rapidity of their growth. Contagion is held possible in three ways—viz., by the ingestion of tuberculous meat, of which there is yet no proof; by the milk from tuberculous cows; and by inoculation, as from sores upon the udders to sores on the hands of those who handled them. Being questioned whether tubercle in the general system of an animal is sufficient to affect the milk, or is it only in cases of tubercular udders that the milk is dangerous, replied, that observation clearly points to the latter method only. Tuberculous infection of children through milk from an affected mother is considered. The death-rate among children from tubercular disease is suggestive. Excluding the first three months of life, meningitis causes the larger number of deaths from tubercular disease during the first five years of life. Can this tubercular meningitis be regarded as the result of infection from tubercular mesenteric glands? Dr. Littlejohn believed tuberculosis was more common among dairy than among ordinary farm stock; the reason probably being that cow byres were kept in an extremely bad condition.

The concluding Report by the Committee tabulates several well known conditions which predispose cattle to tubercular infection, but goes beyond the evidence in regarding both the flesh and milk of a tuberculous cow as unfit for food. While it is true that "the digestive fluids do not necessarily exert an injurious influence upon poisonous bacilli," there is meantime no evidence to show that milk from a cow otherwise tubercular, but having no udder lesions must be regarded as necessarily containing the bacillus. Indeed, Dr. Littlejohn stated that the bacillus has hitherto only been found in milk when the udder was markedly affected.

MEDICINE AND PATHOLOGY.

By R. STEVENSON THOMSON, B.Sc., M.B., C.M.

Disinfection and Disinfectants.—The conclusion of the Committee on Disinfectants of the American Public Health Association is that the most useful agents for the destruction of spores containing infectious material are:—1. Fire, complete destruction by burning. 2. Steam under pressure 105° C. (221° F.) for ten minutes. 3. Boiling in water for half an hour. 4. Chloride of lime, a 4 per cent solution. 5. Mercuric chloride, a solution of 1 to 500.

For the destruction of infectious material, which owes its infecting power to the presence of micro-organisms not containing spores, the Committee recommends:—1. Fire, complete destruction by burning. 2. Boiling in water for ten minutes. 3. Dry heat, 110° C. (230° F.), for two hours. 4. Chloride of lime, a 2 per cent solution. 5. Solution of chlorinated soda, a 10 per cent solution. 6. Mercuric chloride, a solution of 1 to 2,000. 7. Carbolic acid, a 5 per cent solution. 8. Sulphate of copper, a 5 per cent solution. 9. Chloride of zinc, a 10 per cent solution. 10. Sulphur dioxide, exposure for twelve hours to an atmosphere containing at least 4 volumes per cent of this gas in presence of moisture.

The Committee would make the following recommendations with reference to the practical application of these agents for disinfecting purposes, for example:—(a) *In a sick room*—1. Chloride of lime in solution, 4 per cent, in the absence of spores. 2. Carbolic acid in solution, 5 per cent. 3. Sulphate of copper in solution, 5 per cent. (b) *In privy vaults*—1. Mercuric chloride in solution, 1 to 500. 2. Carbolic acid in solution, 5 per cent. (c) *For the disinfection and deodorisation of the surfaces of organic material in privy vaults, &c.,* chloride of lime in powder.

Heart and Blood-Vessels in the Young. Dr. Jacobi (*Brooklyn Medical Journal*, March, 1888).—The young infant (and child) has less blood in proportion to its entire weight; this blood has less fibrine, less salts, less

hæmoglobulin (except the newly-born), less soluble albumen, less specific gravity, and more white blood corpuscles than the blood of advanced age.

The function of the heart begins in the third week after conception. Its beats are very irregular at first, become soon regular, but remain very frequent until birth.

The writer was seldom mistaken in the prediction based on Frankenhäuser's principle, of the sex of the child (that a foetal pulse, when nearer one hundred and twenty-four than one hundred and forty-four in a minute, belonged to a male child, and *vice versa*), provided the examination was made when the pulse was not disturbed by causes due to changes in either the foetus or mother. According to Boyd, the proportion of the weight of the heart to that of the body exhibits no differences in the several ages, and the mechanical labour required to supply the body, or any part of it, with blood is therefore about the same in the young as old. Still there are differences.

The large majority of foetal diseases of the heart are met with in the right auricle and ventricle. Acute endocarditis and acquired valvular diseases are quite frequent in children. The temptation to make the diagnosis of cardiac hypertrophy is still greater than its actual occurrence, for the heart's dulness is liable to be extension under normal circumstances.

In twelve healthy children of from three to eight years, Gerhardt found the cardiac dulness almost as large as in adults. Dulness commenced about the third or fourth rib, its height equalled half the length of the sternum; the impulse was often found beyond the mammillary line, and not infrequently in the fourth intercostal space, for the diaphragm stands higher in children than in adults.

Abnormal shapes of the thorax are frequent causes of increased dulness. As soon as the shape of the chest becomes quadrangular or triangular in consequence of previous pleuritic adhesions or rachitic deformity, the heart touches a level surface instead of an arch, its dulness is apt to give the impression of enlargement, and its more distinct impulse that of hypertrophy.

In cases of anæmia in infants, murmurs in the carotids and over the large fontanelles are by no means rare. These murmurs, audible over the brain, do not belong to rachitis only, but are found in every condition in which the blood pressure in the large arteries of the cranial cavity is lessened.

The heart itself exhibits functional murmurs but seldom. Whenever there are murmurs present, it is safer to attribute them to organic disease rather than to merely functional disorder. Not a few of the babies and children who cry the greater part of the night have no other ailment besides general anæmia, and such children are relieved by a meal or some stimulant before they are put to bed or given during the interruption of their sleep. The pulse of such children is sometimes very much accelerated; sometimes, however, it is slow and sometimes irregular.

The Pulse in Healthy Infants. Keating and Edwards (*Archives of Pediatrics*, December, 1888.)—Immediately after birth the pulse becomes much less frequent than during foetal life, when it ranges between 124 to 150, or more. Our own observations in the main agree with Smith and Jacobi, that within an hour after birth the heart's action becomes more regular, and settles down to about an average beat of 136 per minute. Other observers do not agree with these figures. Valleix estimates the number of pulsations per minute, between ten days and twenty-one days, at 87; Trousseau places the figures for the first week of life as between 78 and 150, Gorham in the main agreeing with him. These figures, to us, seem too low, especially if we consider their disproportion to the foetal beat; and, furthermore, the fact that the new-born babe's heart must now carry on its independent circulation, and, per consequence, must find exacting demands upon its contractile power, so that we can but conclude that the higher figures are more nearly correct. During the first eighth to quarter minute after birth the heart pulsations are not discernible, then they commence slowly, so that by the first half minute they are probably not more than 10 or 12 per minute; in the second half

minute a vigorous child will cry, and the pulse will become rapidly accelerated, even as high as 160, to shortly settle down to between 136 and 140. Immediately after birth the pulsations are alone to be ascertained by placing the hand over the præcordia; as the child becomes a little older—one week—the femoral or carotid is reliable to estimate the pulse-beats, or we may observe the basilar through the open fontanelle. Jacobi states that the beats of the fontanelle or the carotid can be distinguished and counted easily, up to a frequency of 240 per minute.

Sleep has the most remarkable effect in reducing the number of pulse-beats. While awake, particularly if the child is sitting or standing, the pulse is more rapid, while muscular exertion or mental excitement may cause the pulse to become as rapid as in disease. In feeble children this acceleration is more marked; as the child grows the pulse is much less susceptible to all these influences; and we find the child of six years with an average pulse of 100, which, at thirteen, has become reduced to 88, closely approximating the adult rate of 72.

DISEASES OF THE EYE.

By FREELAND FERGUS, M.B.

Mr. Hutchinson on Opacities of the Vitreous.—Mr. Jonathan Hutchinson has, in a very interesting article in the *Ophthalmic Review*, drawn special attention to opacities in the vitreous. As treated by the author, this subject seems to be one of very great importance from a diagnostic point of view. At the outset he states his opinion that such opacities are generally connected with disease of the retina, and that in choroiditis, iritis, and the inherited keratitis of syphilis, the vitreous generally escapes. He states, however, that in a peculiar and insidious form of iritis in young adults, the vitreous only exceptionally escapes. In iritis, associated with gout, he also finds almost constantly such opacities. Amongst other unusual causes which he mentions, we would notice a want of tone due to sexual excesses, and especially to masturbation. He mentions also a case of a young adult, whose parents were the subjects of gout, and who himself had a slight cardiac affection. A lowered tone from the prolonged administration of arsenic may also give rise to opacities in the vitreous. In this connection he recalls the fact that arsenic sometimes produces peripheral neuritis, as is exemplified by its causing occasionally herpes zoster, and tingling and numbness of the skin.

Abstracts from Knapp's Archives.—The current number of this *Journal* contains several very interesting papers. To begin with, there is a case of *glioma of the pons*, fully described by Schmidt-Rimpler. The tumour was situated on the ventral surface of the pons, and produced first paralysis of the two abducens oculi nerves, then of the hypoglossus and facialis. At the end of the paper there is a discussion as to the origin of choked disc. Odd to say, this case was almost entirely free from any retinal disturbance till about two days before death. The only change which then occurred was that the optic nerve and the adjacent part of the retina got quite hazy. We presume that the change was seen in both eyes although the author does not say so. He explains choked disc by what he calls his "transport theory, according to which the subdural and subarachnoidal fluid is forced out of the skull into the subvaginal space, which it distends, and leads to oedema of the lamina cribrosa. This latter condition first causes venous strains by pressure on the vessels, and later on may give rise to inflammatory processes, due to the damming up of the arterial supply of the blood." Such in brief is Schmidt-Rimpler's contribution to this disputed matter.

In the same number Reindorf, of Neuss, makes a valuable contribution to the subject of *cataract extraction*. He believes strongly in iridectomy and in posterior capsulotomy. He makes his puncture and counter-puncture in the

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particularity of the child is getting or stimulating the child to work in order to create an internal environment and cause the behavior to be different. It should explain this in relation to how the child grows the problem is made less susceptible to all that and we find the child of that years will be an average person of 10 years. The focus is related to actually representing the child.

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Henry Bennet, in a recent
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sclera and the rest of the incision in the corneo-sclerotic border. He claims for posterior capsulotomy the advantage that cortical matter is more safely dissolved when the posterior capsule is ruptured. If this be true, and we see no reason to doubt his statement, then there is something to be said for posterior division of soft lenses. It is very interesting to note, in his results, the marked improvement which took place after he began to use antiseptics. The antiseptic which he uses is the sublimate. Since introducing it he has not had a single case of suppuration.

This number of the *Archives* contains an excellent *résumé* of *Ophthalmology* for 1888, and an exceedingly good review of Charles Prentice's *Dioptric Formulæ for Combined Cylindrical Lenses*.

Speaking of cataract extraction reminds us that Dr. Little's paper, presented to the Glasgow Meeting of the British Medical Association, has at last been published. We were afraid that it had been somehow mislaid in the archives in the Strand, and are glad to see it. It deals with over 1,200 cases of extraction, and was contributed for the purpose of setting forth Dr. Little's reasons for adhering to iridectomy.

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THE
GLASGOW MEDICAL JOURNAL.

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ORIGINAL ARTICLES.

ON MALOJA AS A HEALTH RESORT FOR CONSUMPTIVES AND OTHERS.

BY PROFESSOR M'CALL ANDERSON, M.D.

(Read before the Medico-Chirurgical Society, 8th March, 1889.)

IN the year 1879, at a time when the virtues of Davos Platz were comparatively little known and appreciated in these parts, I read a paper before this Society "On the Climatic Treatment of Consumption," with special reference to a visit to Davos. The favourable opinion which I then ventured to express has been amply corroborated, and everyone now admits that carefully selected cases generally improve, and that a considerable proportion are cured, by a residence at that place.

The consequence of its deserved popularity is, that the crowds who flock to Davos are annually increasing; so much so, that there is a fear on the part of some that evil results may ensue from overcrowding, and from contamination of the pure mountain air. Thus, Dr. Henry Bennet, in a recent letter to the *British Medical Journal* (16th February, 1889), makes the following remarks:—"I myself, a consumptive, cured more than a quarter of a century ago, should now refuse to travel at sea in a cabin with a consumptive fellow-traveller in advanced disease, as I should refuse to inhabit the large hotels in the Engadine, where scores, nay hundreds, of consumptives, in all stages of disease, now congregate

every winter, poisoning the air which they breathe, in a climate where free ventilation—ventilation as I understand it—appears to me an impossibility. A friend of mine, a scientific physician, Dr. Jacoby, of Nice, tells me that he found tuberculous bacilli in the atmosphere of one of these hotels in July.” Without wishing to endorse this opinion, I think it will be admitted that it is desirable to give patients some alternatives in the selection of a mountain climate. It is true that we have an abundant choice of such localities in various parts of the globe, *e.g.*, at the Cape, the Kirghig Steppes of Asiatic Russia, and numerous health resorts in Mexico, Ecuador, and the United States,* to which I made reference in former communications. But the distance of these places from our shores is to many a serious drawback, while Switzerland is comparatively near. It is well, therefore, that in that country other places are springing up, such as Wiesen, St. Moritz, and Maloja, to contest the supremacy of Davos.

Having recently made a short stay at the last of these, I have thought that it might interest the members of the Society if I gave them some of my impressions with regard to it, and of its virtues in the treatment of consumption.

The Engadine, or Valley of the River Inn, in the east of Switzerland, one of the highest inhabited and most populous valleys of the Alps, is about sixty miles long, and descends from south-west to north-east. It is divided into the Lower Engadine, or northern portion, and the Upper Engadine, or southern portion, which extends from Samaden to Maloja. Immediately beyond Maloja the road descends rapidly in zig-zags towards Italy. The best route from London to Maloja is *via* Dover, Boulogne, Basle, Zurich, and Coire, which can be accomplished, exclusive of stoppages, in 27½ hours. From Coire Maloja can be reached easily by coach or carriage over the Juliar Pass in about 14 hours. But it is better to break the journey, stopping a night at Mühlen or Tiefenkasten, so that it is nearly as accessible as Davos, to which one can travel from Coire through the Landwasser Thal in 8½ hours. The return journey can be made by diligence or carriage to Chiavenna, thence by train to Colico, steamer on Lake Como to the town of Como, thence by rail over the beautiful St. Gothard line to Basle, and back to London as on the outward journey.

The Hotel Kursaal Maloja, built by a Belgian company, is

* Paper read at the Glasgow Pathological and Clinical Society, 14th November, 1882.

an immense building, having accommodation for about 350 guests. It was specially designed as a winter residence; and the arrangements for drainage, ventilation, and warming of the air are of the most complete and admirable description—a full account of which is to be found in my friend, Dr. Tucker Wise's most interesting and instructive volume on *Alpine Winter in its Medical Aspects*.^{*} The system of ventilation admits of being adjusted to suit any temperature or degree of humidity of external atmosphere; and M. Coztella calculates that it is possible, supposing the Kursaal to contain 400 persons, to provide for each individual 3,500 cubic feet of air per hour. I can, from personal experience, corroborate all that has been written in regard to this hotel, which is undoubtedly one of the finest and most comfortable in Europe; and I know of no structure which is so admirably suited in every respect for the reception of invalids. The cuisine is excellent and varied; the drinking water is very good, and of absolute purity; and the Select Band from the Scala Theatre at Milan, which plays every afternoon and evening, is of the highest class, and is much appreciated by the residents. The Hotel Kursaal is situated at the southern extremity of Lake Sils, the most charming of the chain of lakes which stretch from St. Moritz to Maloja; and the attractions, in the shape of scenery in the neighbourhood, are numerous and varied. Those who are fond of walking have an ample choice of easy excursions on level ground, and those who are able for mountain climbing can gratify their inclinations to their hearts' content; while those who prefer driving or sleighing will find the roads excellent, and such well known places as Promontogno, near the Italian frontier, St. Moritz, Samaden, and Pontressina, are within easy reach.

The class of cases likely to be benefited by a residence in high mountain valleys may now be mentioned. No one would of course think of recommending those whose symptoms are acute in character to leave home, or when the greater part of the lung tissue is involved, or when the disease is complicated with bronchitis and emphysema; for, in a highly rarefied atmosphere, there is not a sufficiency of lung surface to ærate the blood, and such patients run the risk of being suffocated. Those, too, whose lung trouble is complicated with organic disease of the circulatory or nervous system should not go there, such places being too intensely stimulating for them. The patients, in fact, who are most certain to do well are pretty much those who have the best chance of improvement

^{*} Fourth edition, p. 105. Churchill, London. 1888.

elsewhere—namely, uncomplicated cases of chronic phthisis in which the extent of lung tissue involved is not excessive, with this proviso, however, that while the prognosis of phthisis with pronounced stomach symptoms is not good at home, these are the very persons who should be sent to the mountains; for there the appetite usually rapidly improves, and the digestive organs resume their normal vigour. According to Dr. Theodore Williams and others, the high-altitude treatment seems to be specially adapted for cases where hereditary and family predisposition is present. It is a mistake to suppose, as some have done, that a tendency to hæmoptysis is a contra-indication; indeed there is good evidence to show that this complication is less common at high altitudes than at low levels, although such residence does not of necessity preclude it.

As a type of the class of cases suitable for a residence at Maloja, I may mention that of a lady, about 30 years of age, whom I saw several times last year in consultation with Dr. Johnstone Macfie, and whom we sent there last winter. She had been ill for about a year. The right lung was quite sound, but the upper lobe of the left was consolidated with some moist râle, and the whole lung was slightly implicated even to the base. The expectoration was moderate, the temperature seldom above the normal, and sweating slight; her digestion was very weak indeed. Dr. Tucker Wise wrote to me in regard to her on the 18th of December last, after she had been at Maloja for about a month—"I am glad to tell you that Miss W. is doing very well; she is just the case for Maloja—that is more than I can say for some of the cases which have been sent here."

In reference to another patient whom I saw with Drs. Wilson and Herbertson at Johnstone a short time ago, and with reference to whom I communicated with him, as I had some doubt about recommending him to go there, he wrote as follows:—"With reference to your observations about a patient aged 55—ill 1½ year, whole of left lung involved—I think his age is rather against the Engadine in January or February. It is, as a rule, too cold for *clubbed* nails, and as he is liable to hæmoptysis, exercise might sometimes be impossible. I should be inclined to say Les Avants (3,200 ft.), where he would be able to run down to Montreux, if a more sedative air was indicated. If the cough is troublesome, or throat irritated by the foetid expectoration, Wiesen (4,700 ft.) is of all the higher places the softest climate, and a drop could be made to Coire when necessary (the Steinbock Hotel

is the best). I take my cases to Wiesen the end of March, and they all do well and gain in weight."

There is some difference of opinion as to why consumptives benefit so wonderfully from a residence in high mountain valleys, but there are good grounds for supposing that it is due to a combination of causes. In the first rank must be placed their elevation, with, as a consequence, the rarefaction of the atmosphere, the bracing coolness, and the purity and antiseptic qualities of the air. Their virtues are likewise to be attributed in part to the intensity of the solar radiation, and to the dryness and stillness of the air. It is a mistake, however, to suppose that the inhabitants of elevated regions enjoy complete immunity from phthisis, but when such cases do crop up, they are usually the result of living in filthy, badly ventilated, and damp houses, and of otherwise setting at defiance the recognised principles of hygiene and of diet.

It is hardly fair to institute a comparison between Davos and Maloja, because we have had much longer and more extensive experience of the former, and we know with tolerable accuracy what it is capable of effecting. But there is reason to believe that each has its own special attractions. As regards Davos, many will select it because it is *known* to be admirably adapted for the relief and cure of properly selected cases, because of the extreme stillness of the atmosphere, and because it has so many hotels and lodging-houses, thus affording a great deal of pleasant social intercourse, as well as a considerable variety of amusements.

Maloja, on the other hand, has only one hotel open in winter, and there are neither lodging houses nor shops, so that it is much quieter, although this may be deemed an advantage by some invalids. There is, too, much more wind, the valley wind (or thalwind, as it is called), and it is much stronger at Maloja; but the temperature is more equable, and the south and south-west winds (föhn) are much less prevalent than at Davos, the föhn being very depressing to invalids. Again, the elevation of Maloja, like that of St. Moritz, is greater than that of Davos, being 5,941, as against 5,200 feet above the sea level, so that, as Dr. Tucker Wise remarks, it is more "highly stimulating, bracing, and exciting, with strong electric conditions of the atmosphere and excess of ozone." During December and January, too, Maloja has an hour more of sunshine than either Davos or St. Moritz, and everyone knows how much both mind and body are influenced by the amount and duration of the sunshine, not to speak of the longer time thus afforded for out-of-door exercise. Then we must never

forget that, although the accommodation for patients at Davos is good, it cannot compare with that of the Hotel Kursaal at Maloja, and to which I have already sufficiently referred. Finally, if it is found that such an elevated locality does not agree, a lower level can readily be reached—Promontogno being within an hour and a half's, and Chiavenna within three hours' drive—the former being 3,200, and the latter 4,290, feet lower than Maloja. As has been remarked, a journey to Lake Como takes less time than to reach Landquart from Davos.

I do not venture to affirm that Maloja is to be preferred to Davos, but it will probably be found, on further experience, that one of these places is better suited for some patients, and the other for others, although we have not yet sufficient data to guide us *surely* in the selection for individual patients; but in any case, as I before said, it is a great advantage that one more elevated health resort in Switzerland has been added to those which have already proved so useful in the prevention and cure of chronic phthisis.

It will be observed from what I have said, and from what I have written on former occasions, that I have a profound belief in pure aseptic air, such as we can secure in elevated mountain valleys and at sea, in the treatment of phthisis; and, as a corollary to this, it may be inferred that the ward of a hospital is, in my opinion, about the worst place that could be selected for a consumptive patient. Of course phthisical cases should be admitted into hospitals for special reasons—in acute cases, for example, or where there is some complication, such as bronchitis, hæmoptysis, or uncontrollable diarrhœa; but, in kindness to the patients themselves, that class of cases which I have already mentioned as suitable for a residence in high altitudes should be excluded. If this were done, the overcrowding of the medical wards of our hospitals would in great measure cease, and other and more suitable cases would obtain admission. For a hospital is not a poor's house: it has to do with the cure of disease, and if it is used as a shelter and home for chronic invalids, the object of its foundation is frustrated and its funds misapplied. From my point of view, therefore, the project of erecting an infirmary for consumptives in this district should be strenuously resisted. But while this is so, I would cordially welcome the accumulation of a large fund for the benefit of such patients—not to be expended in stone and lime, but in sending them to regions where they have a fair chance of recovering their health, and of again becoming useful members of society.

Finally, it may be observed that a residence at such places

as Maloja is useful, not only in chronic organic disease of the lungs, but also in spasmodic asthma unaccompanied by emphysema or heart disease, in anæmia and chlorosis, and also in cases which have been included under the term of "jaded brains." If there are any of my professional brethren here who have been working too hard, too continuously, and at too high pressure, and who feel in consequence that they are below par, and neither take that interest in their work nor feel that ability to deal with it which they used to do, let me tell them that they could not do better than spend a few weeks at Maloja; and I am sure that, from whatever point of view they regard it, they will never have reason to regret the counsel which I have ventured to give them.

THE ETIOLOGY OF STRABISMUS.

By FREELAND FERGUS, M.B.,

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(*Read before the Glasgow Medico-Chirurgical Society, 22nd February, 1889.*)

I DO not think I require any apology for introducing to this Society the subject of squint, which is one of the most important in practical ophthalmology, and at the same time one which is still surrounded with very many difficulties.

At once I exclude from the subject such cases of squint as are due to paralysis of the recti muscles, as also those cases of apparent squint due to a diminution or an increase of the angle gamma. The former, for the most part, fall within the sphere of the physician; the latter are not cases of squint at all, although I think I have seen such a case operated on by tenotomy.

By squint is meant any condition in which binocular fixation is prevented, and that for any point within the range of convergence. Thus, when the patient fixes any distant object, we may find that the axis of vision of one eye does not fix that object. In fact, it may fix an object much nearer, as in permanent convergent strabismus, or there may be actual divergence.

Again, when the patient fixes a near object, the axis of one eye may be directed to an object more remote or to a nearer object. This may take place even although the axes are both normal for distant fixation, and as a matter of fact very often

does take place when there is insufficiency of one internal rectus muscle.

Again, a squint may either be periodic or permanent. In the former it is only present at certain times and under certain conditions, in the latter it is constant although not always present to the same extent.

So far matters are clear enough. It is only a case of noting down certain conditions and of recording them in definite language.

The classification is, however, not so easy when we look at it from the etiological standpoint, and it is in this aspect that I intend to deal with it to-night.

Ever since Donders gave to the English reading section of ophthalmic surgeons his views on the origin of convergent strabismus, these views have more or less been accepted, so that it is now, as a Dublin *confrère* said the other day, somewhat of a heresy to hold any other.

These views, however, have of late met with a good deal of opposition, and from the amount which is being written and said on the subject, both by foreign and British surgeons, we may gather that they do not receive universal acceptance.

It is my object briefly to recapitulate these various views with the purpose of clearing the ground.

And here let me note the difficulty, I had almost said the impossibility, of arriving at a satisfactory conclusion as to the cause of the majority of squints. To ascertain the cause it is necessary to know (a) the condition of the refraction of the eyes; (b) the visual acuteness of each eye; (c) the relative values of the external and internal muscles of each eyeball. This investigation ought to be made in all cases of squint before any operation is undertaken, and that for reasons which we shall state in due course. Suffice it to say, however, that in measuring the strength of muscles the perimeter is, in my opinion, much to be preferred to the older method of finding the strongest prism which a muscle will overcome. For the angle at which the prism is held in front of the eye makes a material difference on the amount of deviation produced by the prism.

The difficulty will at once become manifest when it is remembered that our patients, whom we most wish to investigate, are for the most part young children, for it is generally in childhood that a person begins to squint.

Those who have tried it know well how difficult it is to determine the refractive condition of children's eyes. As a rule, it can only be done objectively, and even then not often

with very great satisfaction. Both eyes may be hypermetropic, but one may have a slight astigmatism which the other lacks, an astigmatism which in a young child none would care to pronounce on definitely. And yet, if Donders' theory is true, this small amount of astigmatism may be the determining cause of the strabismus.

Again, how careful one should be before pronouncing as to the visual acuteness of even an adult. It will not do simply to give the person a series of types in his hand, and find that at some distance he sees No. so and so, and then note that the patient sees letters of such and such a number. That is no statement of the visual acuteness at all worthy of the name. It is not even very satisfactory to put the patient at the standard distance and make one observation, and find that the V.A. is say $\frac{2}{10}$. The visual acuteness is only satisfactorily stated when the eye has been repeatedly examined, with any error of refraction and accommodation duly corrected. We say several examinations should be made and the average taken.

A few cases which I have lately seen will illustrate the importance of great caution in estimating the visual acuteness. One was typical of the series, and therefore I describe it somewhat minutely.

A young child, about 10 years old, was brought to me suffering from defective eyesight. The parents thought that it was simply a case of myopia of extreme degree. I examined her in the dark room with an ophthalmoscope, and was soon convinced that there was no myopia, and, indeed, both eyes were so far as I could judge emmetropic.

On examining the visual acuteness in daylight, I was surprised to find that my patient had not even $\frac{2}{20}$ with either eye, and could only count fingers at one yard distance, but not beyond that. She could read the 1.5 Snellen at about 8 inches, but not beyond. I was then told that four years before, the child had had a fall on the head, and for the moment I began to think that possibly that might have had something to do with the apparent amblyopia. That idea was hardly compatible with the fact that till a fortnight before I was consulted, so far as the parents saw, the patient could see perfectly well.

The fundi were normal, except that there was that appearance known as the shot silk retina. Under the circumstances I was inclined to believe, and still do believe, that what I was dealing with was chiefly an extreme condition of ciliary spasm. Be that as it may, a weak solution of belladonna

restored that child's sight to $\frac{20}{30}$ in the course of three weeks. Be it observed, however, that this child had not at the time of examination or ever afterwards any strabismus, showing clearly that under certain conditions some persons at any rate possess the power of disassociating to a very great extent the acts of convergence and of accommodation. This is only one of a class of cases. I have given it at length, for it was the most typical I have seen.

We shall have to speak of this case again when we mention amblyopia as a cause of squint. In children, I never attempt making any examination of the relative strengths of the external muscles. Before operating, however, I try to ascertain that the muscles are acting freely and well. In any squint then we may have one or more of these factors—(1) an error of refraction; (2) an error of accommodation; (3) a diminution of the V.A. of one eye or both, but one to a greater degree than the other; (4) an insufficiency or an over action of one muscle.

It is now time that we should examine Donders' views more in detail, after that we shall see what other views are held by other authors, more particularly the views of Schweigger. At the outset, Donders remarks, "Strabismus is not an independent morbid condition, as is comprised in the definition given; it is only a symptom. We may add that it is a symptom dependent on many different conditions, and as such connected with other very different phenomena." That this is true, no one, I suppose, has any doubt—true both of strabismus convergens and of strabismus divergens. There is no one cause which explains, or indeed has ever been called to explain, all cases of strabismus convergens or of strabismus divergens. The most interesting case is that of strabismus convergens, and to that we first direct attention. Donders explained the large majority of cases of strabismus convergens by saying that they were due to the presence of hypermetropia. He found that 77 per cent at least of persons suffering from strabismus convergens are hypermetropic. His explanation is briefly as follows:—

Every act of vision involves in the hypermetrope an effort of accommodation, and, therefore, a tendency to convergence. The greater the hypermetropia and the nearer the object fixed the greater the amount of accommodation and of convergence called into action.

Donders is at once struck with the fact that all hypermetropes do not squint, and he mentions several circumstances which, in his opinion, co-operate with the hypermetropia to produce squint. These are, a decreased visual acuteness in

one eye, due to a congenital want of sensitiveness of one retina, a greater degree of ametropia in one eye than in the other, some opacity of the media, some peculiarity of the muscles, or some abnormal relationship between the visual axis and the axis of the cornea. The latter, notwithstanding Donders' figures and the great weight which attaches to anything he may say, I for one am not prepared to admit.

According to Donders, given a certain amount of hypermetropia, with its tendency to convergence, and given one of the co-operating causes, then strabismus takes place. Schweigger makes a most important admission when he says, "It cannot be denied that the relation existing between convergent strabismus and hypermetropia may be as Donders represents it; the only question is whether it really is so."

At the outset, I would take exception to one of Schweigger's statements. In the first place, I see no ground for believing "that the connection between accommodation and convergence is an individual and acquired one." At least I do not see any reason to believe it in emmetropia. I have not yet seen any child who ever did anything else in infancy than look at any object it fixed with both eyes. I have not seen any child first fix one object with one eye and then with the other. So far as my experience of infants goes, they fix with both eyes without any difficulty, unless indeed there be some paralysis or obvious lesion. Again, it is quite true that "in proportion as myopia is gradually developed in originally existing emmetropia, myopes have to converge to the neighbourhood of their far point without allowing their accommodation to come into action." Yes, they learn to do it. This disassociation of the efforts of convergence and of accommodation is entirely a matter of education, and one which very frequently causes the patient a good deal of suffering. Over and over again I have found young myopic adults, who had not always been myopic, but who had become so, suffering intense asthenopia when looking at their remote point of vision. I have sought in vain for an explanation of this asthenopia in an uncorrected astigmatism, and have not found it. Take, for example, the following as typical of this group of cases. A patient, aged 18 years, is brought, in whom there exists a myopia of 2D. Surely a patient such as this ought not to have any difficulty for work at 20 inches, or even 15 inches, or less. Well, that patient suffered most severely whenever the eyes were used for any near-at-hand object. Perfect comfort, however, was restored so soon as the eyes were made emmetropic, and thereby the normal relationships between the accommodation

and convergence restored. If I am not mistaken, Dr. Berry, of Edinburgh, was the first who pointed out this source of asthenopia.

There are three facts which, to my mind, are conclusive proof that Donders' theory is not only a sufficient, but the necessary, explanation of a certain number of cases of strabismus convergens. These are—that the instillation of atropine will sometimes cure the squint. It is supposed that it does so by relieving the accommodation; but I for one have a suspicion, founded on certain cases that I have seen, that it does so, to a slight extent in some cases, by improving the visual acuteness, and thereby increasing the desire for binocular fixation. Take, for example, that child whose case I have somewhat minutely described. Had the condition which existed in both eyes been present only in one, and had there been any cause or causes in the condition of that eye tending to squint, I have no doubt that the patient would have squinted, and that the squint would have been cured by the treatment adopted.

The second point in favour of Donders is this, that in many cases glasses, which correct the error of refraction, cure the squint. This is no doubt due to the relief of the accommodation, and possibly to an improvement of the visual acuteness of the squinting eye.

The last point I would mention is this—I think it is mentioned by Donders; it certainly is by Landolt:—"If we possess binocular vision, let us fix a near object; cover one eye—the left, for instance—and place a concave glass before the right. This will not change its direction, but will continue to see clearly. But the effort of accommodation which it is forced to make in order to neutralise the negative glass imposes itself at the same time on the other eye, and provokes in the latter a convergent strabismus of a degree corresponding to the power of the concave glass."

Schweigger lays stress on the fact that in many cases of high hypermetropia there is no asthenopia, and draws the conclusion that "were the increased demand on the accommodation really the cause of the convergent strabismus, asthenopia would be far more common than it is among hypermetropic children." Now, I think Berry is right when he says that the asthenopia is due to the abnormal relationship between the refraction and the accommodation, and that a person may have the abnormal as his normal from a hereditary and inherited condition, and hence no asthenopia in his case.

Schweigger's view may briefly be stated as follows:—While not altogether denying the influence of accommodation

in certain forms, especially in the periodic convergent squint, he seeks the cause of strabismus convergens rather in the balance of the muscles. I dare say most of us who have studied the question will readily agree with him when he says that strabismus convergens, when occurring in myopia and emmetropia, is for the most part to be explained by a preponderance of the internal rectic muscles. Is it, then, just a step to say that we must seek the cause of strabismus convergens associated with hypermetropia in the same causes? That many of the cases may thus be explained I, for one, admit; but that the H. is a special determining cause I have no doubt. For if the H. were merely a coincidence, then we would expect to find that strabismus convergens was proportionately common in hypermetropia, emmetropia, and myopia, which it is not.

I think Schweigger's opinion is the correct one for myopia and emmetropia, but to my mind it does not explain the immense preponderance of these cases in hypermetropia.

I am not surprised to find some myopics who have convergent strabismus, as I am not surprised to find many who have divergent. Suppose a person who is myopic in both eyes, but in one to a greater degree than another. Such a person will naturally fix distant objects with his less myopic eye. When at work, however, he will bring the object on which he is working within the range of both eyes—i.e., to about the remote point of the more myopic eye—so as to have the advantage of binocular vision. This may lead to a permanent convergence which he may have difficulty in relaxing. If his work near at hand be tolerably constant, it may even, according to Graefe, produce a structural shortening in one of the muscles. Thus, when he looks again at a distant object, he will have a convergent strabismus. Again, if one eye in a myope have from any cause a much diminished acuteness of vision relatively to the other eye, the patient may altogether avoid the great effort of convergence for near distances by allowing one eye to have relative divergence. This will, from want of use, lead to a weakening of the internal rectus. Moreover, in most myopes the external rectus is relatively stronger than the internal, except in the cases quoted above.

There is in this connection only one other point of importance. It may be said—and if we understand Schweigger aright, he gives some prominence to this view—that the H. is causal to some extent at least, in so far as it produces a congenital amblyopia. An eye thus rendered amblyopic is left to the free action of the muscles, for a patient in this state

has little or no desire for binocular vision. The question thus opened raises an immense field for discussion, which the necessary limits of this paper preclude one from entering upon. It is the old question—Is the amblyopia which we so often find in strabismus the cause of the strabismus, or is it not rather caused by the strabismus, and therefore due to the want of use? Donders favours the latter view; Schweigger the former.

This is a question to which I am not prepared to give a dogmatic answer. If an amblyopic and squinting eye recovers a certain amount of vision after tenotomy, then something is to be said for Donders. In the able paper which Dr. Berry read before the Dublin meeting of the British Medical Association, he very aptly points out that two forms of amblyopia must be distinguished—“(1) That in which central fixation is retained; (2) That in which it is lost.” When an eye suffering from the first form is called into use, it recovers to a considerable extent its acuity, although in most eyes there is a permanent element. So far, then, there is an amblyopia *ex an opsia*. I wish I could do justice to Dr. Berry's views, but the time at my disposal interferes. It may be sufficient to state that he seeks an explanation of strabismus in the innervation of the muscles of the eyeballs.

That an amblyopia may be a most important factor in producing strabismus, none will deny. I recently had a good example of it in connection with a patient at the Charlotte Street branch of the Glasgow Eye Infirmary. He was a lad of about one or two-and-twenty, whose left eye became cataractous from an injury. As the eye was quiet, there was no reason why discission should not be performed, and after two operations he was left with a clear, round, central pupil. I noticed that during the process of recovery the eye began to deviate outwards. On correcting for the refraction, I found that the best glasses for distance were

Right, $S + 1 = \text{Cly.} + 1.5.$
 Left, $S + 10 = \text{Cly.} + 2.$

With these, the distant vision was—right eye, $\frac{20}{30}$; left, $\frac{20}{100}$. The left eye, however, after the lapse of several months, still deviates. This, I think, clearly shows that the V.A. being much less in the left than in the right, the patient has given up the desire for binocular fixation, and allowed the muscles to follow their own bent.

In view of this opinion, it is well to remember the views of Stilling, which he published in *Knapp's Archives for 1886*.

He tries to account for all cases of strabismus by what is called the normal position of rest of the eyes. He says that for the majority of hypermetropes, the position of rest is convergent, for myopes divergent. Thus, when a hypermetrope sleeps, it will generally be found that his eyes converge; those of a myope, as a rule, diverge. Hence, when a patient has an amblyopia in one eye, then he gives up all attempts at binocular fixation, and allows one eye—*i. e.*, the amblyopic—to fall into the position of rest. The theory is, no doubt, very ingenious, but it seems to me to want some further proof.

In conclusion, I admit that in the foregoing remarks there is perhaps little that is new. Still, I hope they will be useful in again teaching us this lesson, that we should look before we leap. No operation ought ever to be undertaken without as careful an investigation as the circumstances of the case will permit of into the factors causing a squint. Every case must be judged on its own merits. Hence the impossibility of laying down abstract and dogmatic rules. In surgical interference with squint, we must be entirely guided by principles and not by rules. Some operators always perform tenotomy. This is just as great an error as to operate always by advancement, or to operate in certain cases without first trying the effect of glasses.

A CASE OF CYSTIC DISEASE OF THE KIDNEY DIAGNOSED DURING LIFE.

By DAVID NEWMAN, M.D., GLASGOW.

(*Read at the Pathological and Clinical Society, 11th March, 1889.*)

THIS case is of interest on account of the difficulty in forming a diagnosis from the exceptional symptoms of the disease.

The patient, a male, aged 46 years, first came under my care in the spring of 1881, when he complained of pain in both loins; and from his description, I was led to believe that he had been suffering from an unusually protracted and sometimes severe hæmaturia. At that time I inquired carefully into the history of the case, and discovered that for the last 18 months the patient had been suffering from more or less pain in the right loin, which was believed by his medical attendant to be due to "congestion of the liver;" but when, after 11 months of suffering in the right side, a similar pain developed in the left renal region, associated with the appear-

ance of blood in the urine, the diagnosis of hepatic disease was given up.

At the time I first saw the patient he complained of loss of appetite, flatulence, and occasional nausea after taking food; he was also much troubled by headaches and giddiness. But what alarmed him most was the persistent renal pain and the presence of blood in his urine. The hæmaturia first appeared along with the pain in the left renal region 7 months before I saw the patient, and 11 months after the suffering on the right side attracted the patient's attention. At first the quantity of blood was very small in amount, being only, according to the patient's description, sufficient to tinge the urine when passed; but when allowed to stand, a well defined red deposit was thrown down, amounting, as far as can be definitely ascertained, to a sixteenth of an inch in a column of 9 inches.

When the patient had been under observation for a short time, I instituted a careful search into the condition of the urine in order to determine the relative proportion between the amount of hæmoglobin and the quantity of albumen present in the urine, with the following results:—

TABLE SHOWING ANALYSIS OF THE URINE ON VARIOUS OCCASIONS, WITH SPECIAL REFERENCE TO THE AMOUNTS OF HÆMOGLOBIN AND ALBUMEN.*

	Quantity of Hæmoglobin.	Quantity of Albumen.	Specific Gravity.	Quantity of Urine in 24 hours.
	Per cent.	Per cent.		Oz.
1881. June 7, ...	·101	·237	1011	60
„ 8, ...	·097	·318	1010	62
„ 9, ...	·072	·201	1018	31
Aug. 20, ...	·123	·310	1018	32
„ 21, ...	·124	·379	1016	76
„ 22, ...	·017	·147	1005	78
Dec. 5, ...	·071	·239	1005	78
„ 6, ...	·092	·210	1003	100
„ 8, ...	·100	·307	1010	70
1882. Feb. 11, ...	·131	·370	1018	34
„ 13, ...	·127	·206	1010	50
„ 17, ...	·130	·179	1018	31
Average of 12 examinations, .	·099	·358	1010	58

When the albuminuria is simply due to the presence of blood, the ratio of albumen to hæmoglobin is as 1 is to 1·6.

* The method and advantages of estimating hæmoglobin in urine is detailed in the author's *Lectures to Practitioners on Surgical Diseases of the Kidneys* (Longmans & Co., London, 1888), page 81.

As shown by the above table in this particular case, the amount of albumen is relatively greater—viz., as 358 is to 99; or, to state it more simply, as 3·6 is to 1. That is to say, the whole of the albumen present in the urine is *not accounted for by the presence of blood*; indeed, not more than a fifth part of it could be properly attributed to the hæmaturia. It was therefore evident that there must be some other morbid condition leading to the presence of albumen in the urine. Repeated microscopic examinations of the urine failed to show the presence of blood casts, but on almost all occasions finely granular and hyaline tube casts were found together with free blood corpuscles, and a few leucocytes and epithelial cells.

By glancing over the above table, it will be observed that the quantity and specific gravity of the urine varied greatly, as well as the amounts of hæmoglobin and albumen in the urine. Whether or not this is of any diagnostic value I am unable to say. It may, however, be worthy of attention.

The urine from both ureters was examined separately at three different times, and, it is a fact worthy of note, while on all occasions that from the left kidney contained blood, the urine from the right kidney was free of it.

DURING 1884.

EXAMINATION OF THE URINE FROM THE TWO URETERS SEPARATELY.*

	RIGHT.	LEFT.
Appearance, .	Pale straw colour, clear; on standing for 8 hours slight deposit of epithelium, and a little mucus.	
Hæmoglobin, .	None.	1 in 6,000.
Reaction, .	Neutral.	Neutral.
Albumen, .	A trace.	Larger in amount than from right kidney.
Tube casts, .	Hyaline and granular.	Hyaline and granular.
Microscopic examination, .	Slight deposit of epithelium and mucus, a few tube casts, no blood or pus.	Deposit the same as from right kidney with red blood corpuscles added.

Physical Examination.—The patient is emaciated, and very anæmic. The hepatic dulness and stomach resonance normal. Spleen slightly enlarged.

* Silbermann's method of compressing the ureters was employed, as the author's catheters could not be used in this case.

In both loins there is a non-fluctuant swelling, rounded, slightly irregular on the surface, and when a little pressure is employed, the patient complains of considerable pain. Percussion over the swellings is dull, except at the anterior margin, where a resonant note is obtained even where a feeling of undue resistance is evident to the finger. An area of diminished resonance gradually passes into that of the renal dull area, so that it is not possible to fix any clear line limiting to the anterior margins of the renal swelling. On the right side the percussion of the upper limits of the enlarged kidney is obscured by the hepatic dullness, although the margin can be easily felt on palpation, the right kidney being slightly movable. On the left side the splenic percussion interferes with that of the kidney.

By palpating deeply, the limits of both kidneys can be more clearly made out than by percussion. The right kidney occupies the whole space between the lower margin of the liver and the crest of the ilium, and extends outwards $4\frac{1}{2}$ inches, when the patient is lying on his face, from the vertebral column. The left kidney is a little smaller.

During the time the patient was under observation, the kidneys slowly but steadily increased in size, and at no time either suddenly increased or diminished, even although the quantity of urine varied greatly in amount.

The lungs are slightly emphysematous at their anterior margins, but elsewhere the percussion note is normal, with the exception of the base of the left lung, which is distinctly less resonant than the right. Auscultation reveals slight deficiency of the R.M., and increase in V.F. at the left base, together with dry, sonorous, and finely crepitant râles, over the greater part of the chest, and moist râles towards the bases of the lungs.

The cardiac dullness is generally enlarged. The impulse is displaced downwards and to the left, the apex beat being distinctly felt in the seventh intercostal space, $2\frac{1}{2}$ inches to the left of the nipple. At the apex, the first sound is obscured and somewhat prolonged, but at the base it is more clearly defined. The second sound is clear, and slightly accentuated. There is no murmur, but the sphygmograph shows increased arterial tension.

The facts, then, by which I had to make a diagnosis were—The history of pain in the right renal region, associated with swelling in the corresponding loin, followed some time after by pain on the left side, coincident with the appearance and continued escape of blood from the left kidney only; albu-

minuria (with tube casts), independent of the hæmaturia; hypertrophy of the left ventricle, and increased arterial tension.

When thus stated, the facts appear to point very definitely to cystic degeneration of both kidneys, but there were certain circumstances which appeared to me for a time to mitigate against such an opinion.

The first of these was the persistent and sometimes considerable hæmorrhages, which lead me for some time to suspect that the patient was suffering from a malignant tumour of the left kidney. The character of the hæmorrhage, and the circumstance that it was associated with a swelling in the loin which was steadily increasing, supported this view, while on the other hand, that subsequently the right kidney enlarged, and was also painful—taken in conjunction with the discovery that the hæmorrhage was from the right kidney only, and that there was evidence of chronic tubular nephritis—these facts made me doubt the accuracy of my first diagnosis of malignant tumour, and incline towards that of cystic degeneration, even although this disease is seldom known to give rise to grave symptoms. On account of the severe pain, the patient was anxious to have an operation performed, but seeing that cystic degeneration is a condition in which surgical interference can do no good, I advised him to seek relief from a physician. He went to the Royal Infirmary, where he remained for about six weeks, and improved a little during his residence there, but after his return home, he rapidly became worse, and died with symptoms of uræmic poisoning.

A *post-mortem* examination made on the 10th November, 1886, showed the heart to be greatly hypertrophied (23 oz.) without valvular disease; hypostatic hyperæmia, emphysema, and chronic bronchitis in both lungs, nutmeg liver, passive hyperæmia of the spleen; ascites (15 oz. of serum). The kidneys weighed 28 oz., and are both converted into a large conglomeration of cysts of varying size and colour, and so closely packed together that it is difficult to detect any renal tissue with the naked eye, although with the microscope abundance of tubules and glomeruli can be seen. In both kidneys there is also evidence of chronic tubular and interstitial nephritis. The only difference between the right kidney and the left one is, that whereas the latter is somewhat the larger, the cysts in the former are not so numerous, and are more deeply pigmented.

Remarks.—This case illustrates the value of a detailed estimation of the quantities of albumen and hæmoglobin in cases of hæmaturia, and also the benefits to be derived from an examination of separate specimens of urine from each kidney, as without the facts obtained from them it was almost impossible to form an accurate diagnosis. In cystic disease the symptoms are seldom pronounced—indeed, beyond the presence of swelling in the loin—they are those of chronic Bright's disease. As a matter of fact, in the great majority of cases, the cystic condition of the kidney is not discovered till after an operation, or at the *post-mortem* examination. It has been frequently confounded with ovarian cystoma, and kidneys have been removed, under the belief that the patient has been suffering from that disease, by such well known and distinguished surgeons as Archer, Campbell, Esmarch, Goodell, Keeling, Leopold, Peaslee, and Schedé. Cystic degeneration of the kidney has also been mistaken for solid tumours.

In most works on the subject, the opinion is expressed that hæmaturia is generally slight and transitory, but in this case the urine was never free from blood, and sometimes the amount was so considerable as to suggest the presence of malignant disease. Pain was also a very prominent symptom, more marked than is usually observed in this disease.

In respect to the treatment of cystic disease, I have little to say, the disease being practically a form of interstitial nephritis, its treatment falls to the physician rather than to the surgeon. But while the surgeon has little to do after a correct diagnosis has been arrived at, on the other hand, if he fails to recognise the true nature of the disease, he may be induced to perform an operation which may do much harm and certainly no good. On account of the wide distribution and multilocular character of the cysts, no benefit can be expected from nephrotomy, and again nephrectomy is contra-indicated, because the disease is not only as a rule bilateral, but the kidneys are the seat of chronic interstitial nephritis, so that supposing one kidney is removed, the remaining one is unable to undertake the additional work thrown upon it.

Of the sixteen cases of nephrectomy for cystic disease which I have collected, six died—two from peritonitis, one from uræmia, two from shock and collapse, and one from œdema of the lung, and ten recovered—equal to a mortality of 37·5 per cent.

A NEW NEEDLE HOLDER.

(With Illustration.)

By ALEX. MAXWELL ADAMS, M.B. Edin.

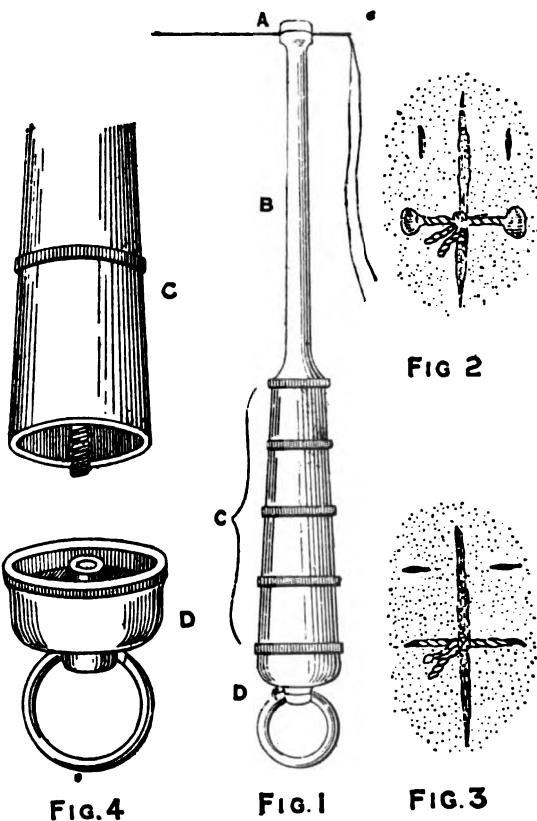
(Read before the Glasgow Southern Medical Society, 21st February, 1889.)

THIS needle holder, which I designed to hold Hagedorn's needles, and which is only adapted for that particular form of needle, I consider to possess several points of superiority over the very ingenious and complicated holder devised by Hagedorn himself.

In the first place, it is much simpler, and the arm carrying the needle being so long and slender, it can be easily introduced into any cavity. It may be caught in any manner, which is not the case with Hagedorn's. At the same time the needle may be introduced between the jaws of the instrument in any direction, and the same needle may be pointed to the right or left, backward or forwards, which is of great advantage in operating in the rectum and vagina. The instrument is composed entirely of a lustrous metal called "argosine," and can therefore be easily disinfected. This metal when polished has an exceedingly bright and silvery appearance, and is very durable, and not apt to tarnish. It consists of a rod—tapering from base to apex—8 inches in length, and is divided into two parts— $3\frac{1}{2}$ inches to the handle, the remaining length constituting the arm carrying the needle. The handle (Fig. 1 C) has five ringed projections which are notched all round, and are designed to give firmness of grip. It tapers gradually down to where it joins the arm (Fig. 1 B), which, on the other hand, is a cylinder of uniform thickness. Throughout its entire length a hole is drilled the ends of which are at the base and apex of the instrument respectively. A steel rod is slipped through this, and has a little plug of metal (Fig. 1 A) which caps the apex of the arm, thus constituting the jaws which grip the needle. The other end of the steel rod projects through the base of the handle, which is largely hollowed out to render the instrument as light as possible. It here presents the form of a screw, which fits into the socket of a female screw contained in the cavity of a cap (Fig. 1 D, and Fig. 4), and which closes in the bottom of the handle. To screw the needle home it is grasped between the jaws of the instrument, and the cap (Fig. 1 D) is turned to the right, when it will be found that the needle is firmly fixed. It is necessary to

gauge the needle, and it will then be found that the slightest revolution suffices to fix it.

The jaws can be separated by pushing the cap (Fig. 1 D) against the handle. On releasing pressure, they are pulled together by the agency of a spring concealed in the handle. This spring is of great use, serving tentatively to grasp the needle until it can be more firmly fastened.



In order to get greater screwing power, a steel ring, such as is used for carrying keys, is introduced through a hole at the free extremity of the cap. It is easily grasped, and being freely movable is not in the way; and when not in use the holder may be suspended by it.

Hagedorn's needles are a great improvement over others. They are either curved or straight, are flat on the sides like a sabre or sword, in consequence of which they penetrate

tissues with great readiness. Their puncture is at right angles to any wound, and when the sutures are introduced and tightened, no gaping of their punctures occur (Fig. 2). With the common surgical needle, the puncture is parallel to the wound, and when the sutures are tightened the punctures gape widely (Fig. 3).

In practice, I find the instrument works well. It is of great use in the immediate operation for lacerated perinæum, and I usually take it with me to an obstetric case. It is far superior to the ordinary handled perineal needle, whose elasticity causes it to bend when pushed through dense tissues.

The holder was constructed by Mr. J. M'Naught, mechanic, 81 Hospital Street, Glasgow, S.S., and is very moderately priced.

OBSERVATIONS ON SOME OF THE OPERATIONS ABSOLUTELY NECESSARY FOR THE PREVENTION OF DEATH.

By T. J. FORDYCE MESSER, M.D., F.F.P.S.G., &c.,
Helensburgh.

(Being the Presidential Address to the Western and Midland Medical Association.)

TRACHEOTOMY and laryngotomy are not new operations, and may be necessary to save or prolong life in many diseases of the air passages, and for pressure upon these passages, as for aneurism of aorta, &c., and other tumours. It may also be demanded for tumours or excrescences in the larynx, whether benign or malignant, as was recently shown in the case of the lamented Emperor of Germany; and it is also not unfrequently called for in cases of syphilitic ulceration of the laryngeal cartilages.

I propose, instead of going elaborately into this operation, to give my own experience of it for the last twenty-six or twenty-seven years; for I was greatly interested in it even as a student, and wrote my thesis on this subject, having seen a considerable number of cases in Professor Spence's wards in the Edinburgh Royal Infirmary, with many of whom I sat up to clean the tube, and otherwise administer to them. Here I would remark that Mr. Spence did a great deal to make this operation not only a justifiable one, but one that was absolutely called for when all the other resources of our art had proved unavailing to prevent death by asphyxia. Conway Evans

about this time—1863 and 1864—published a series of cases with a considerable amount of success. To those men in this country, and to Breteneau of Tours, Trouseau, and others in France, we are indebted for the position the operation now holds, though years before that this operation had been proposed by Dr. Francis Home, who wrote a treatise on "The Croup" as it occurred in an epidemic in Musselburgh, and which was, no doubt, diphtheria. It does not appear, however, that he ever put his proposition into practice—that is, that he ever operated.

There have frequently been discussions as to whether croup and diphtheria are the same, and it is not for me to decide, though I think it possible we may have simply membranous inflammation of the trachea and larynx; but it must be extremely rare. Mr. Spence got out of the difficulty by calling his cases "diphtheritic croup," and if the name merely applies to the sound from which the disease has been called, the cognomen is good enough.

Treatment is not part of this paper, but I cannot refrain from mentioning that used and promulgated in a small work on diphtheria by Dr. Wade, which he states, if put into practice at the very commencement of the disease, is almost universally successful. In this statement I can to a great extent bear him out, and Dr. M'Ewan, of Helensburgh, endorses this opinion, from seeing what appeared a hopeless case recover, without operation, in the Helensburgh Hospital, and others in private practice. A short time before the New Year, I had a case of diphtheria; membrane on the tonsils, and the breathing very much affected, so much so that for six nights I went to bed expecting every moment to be called upon to open the child's windpipe—a girl about four years old—but the membrane first disappeared from the throat, then the breathing gradually improved, till in a few days (that is, about fourteen from the beginning of the disease) she was running about the house well. Dr. M'Ewan saw this child also, and quite agreed with me as to the danger she was in—in fact, we had everything ready for operating, even the parents' consent.

The treatment is this—Iodide of potas, 4 or 5 gr. every three or four hours till the throat begins to improve (and here I would state that there appears in this disease a remarkable tolerance of the remedy), then it is given every six or eight hours for a day or two, and then the child is put on steel, and perhaps iron and quinine. The strength is kept up with light nourishing food and some stimulant, such as brandy or whisky

toddy, and as the appetite is at first bad, the food is gently pressed on the patient. Dr. Cowan recommends a teaspoonful of olive oil every four or six hours also, and with this treatment, a child of my own some years ago recovered. With regard to the throat, I have used chlorine water sponged over the membrane as a disinfectant; but I have little belief in further local treatment. The disease does not spread by continuity. You will find the formula in Dr. Watson's *Practice of Physic*, which I have used since 1864—viz., potas. chor. 8 gr., put in bottle 6 or 8 oz., add 15 or 20 drops strong muriatic acid, then, as chlorine gas is evolved, add 2 oz. water, shake, add two more ounces, and so on; but if the water is added before the acid, the solution is of no use. I have dwelt on this, because I do not think this mode of treatment is sufficiently known, and on reading the article on diphtheria in *Quain's Dictionary of Medicine* (new edition, by M'Cormac), it is not even mentioned.

It is, and always will be, a difficult matter to decide whether or not an operation should be done, and when. Every case must be treated on its own merits; to use the words of Hippocrates in regard to another subject, he says, "Bleed, bleed, I say bleed when your patient requires to be bled;" and so here, with regard to opening the windpipe, I would say, if all remedies have failed, and the patient is dying from suffocation, we are morally guilty if we do not give the only chance there is of life—viz., letting air into the lungs. What would be thought of a medical man who did not try to resuscitate a man who had been in the water because the case appeared hopeless; and yet, how many men go through a long series of years without ever having a case of tracheotomy in their practice! If some men are too timid to tackle with this operation, which is assuredly a difficult one and beset with dangers, then why should they not consult some medical brother who has given his attention to the subject, or get a consultant, or send the patient to one, or to a hospital where the last chance would be given? In my humble opinion, it is as culpable to allow a patient to die without the chance of tracheotomy, where it is demanded, as to allow a patient to die from a strangulated hernia without operating, and that early, where the taxis has failed. One word as to consultants. In too many cases they are called in to see the patient die, and to remove the responsibility from the local practitioner. That is still the case; but I am happy to think that view does not now obtain to the same extent as formerly—in short, gentlemen, the profession is levelling up, and the general practitioner

recognises that the field is too large to be well up in everything; nor has he the opportunity of either reading the literature of special cases or seeing so many out of the way cases as a man in a special department of medicine or surgery—the eye, ear, &c. But I would guard myself here against a much finer division (excepting, of course, diseases of women and children and dentistry), as that tends to narrow a man's view of nature, and without the *medicatrix naturæ* we can do nothing. Above all, to quote Cullen, we must obviate the tendency to death.

To come back to tracheotomy, then. When should we operate? Certainly not till all other treatment had failed, and not so long as the patient was able to get sufficient air into the chest to aerate the blood; not until the lips and face were pallid, or bluish, with distended veins in the neck, great sinking in of the sternum, and violent, but ineffectual, efforts at inspiration. With such symptoms, if the patient (generally a child) is not dying of asthenia—and even then it would be criminal not to give the only chance in our power, as, otherwise, the patient is doomed to death; and it is astonishing how some cases are snatched from the very jaws of death, and these, the cases you least expect, sometimes recover. Some years ago, in one week I had assisted at two fatal cases of tracheotomy, the one a fatal case from hæmorrhage, while I had a case myself threatening every minute to require the operation. A message came about eleven o'clock at night—I knew what that meant. Called and got Dr. Francis Henderson; found the patient (a healthy boy about seven years) struggling for breath, with all the symptoms of impending asphyxia; there was no time to be lost, and in carrying him into the parlour for a table and better light, he looked up in my face and gasped out, "Am I going to die?" I assured him we were going to try and make him better, put him under chloroform—which I almost always do—opened the windpipe, and he is now attending his father's business—a strong, healthy fellow of 17. Another case was considered as hopeless by a doctor, and, in fact, he declined to assist, but Dr. M'Ewan assisted me, and she is a strong, healthy girl now; both these cases were for diphtheria. I also assisted Dr. M'Ewan in a successful case for the same disease, while there is still another young man in Helensburgh whose windpipe was opened by Professor G. Buchanan, and whose sister, who was a big girl or a young woman, died suddenly without being offered the chance of the operation by a medical man, now some years in his grave.

That makes four successful cases of diphtheria in Helens-

burgh, and when we consider that all these cases were done *in extremis*, when all earthly hope of life was given up, I think you will agree with me that it speaks volumes for the operation, and that we are morally bound to give this—the only chance—a trial.

I am not quite certain of the number of operations I have performed, but it must have been about sixteen or seventeen; and I pegged away at the operation, and urged and assisted others, for years before I had a successful case, when at last, within a short time of one another, I had the two recoveries in my own practice, as stated above, and assisted Dr. M'Ewan in a third. Now, statistics are fallacious, and if I only had other two successful cases (and they might occur), it would bring the percentage of recoveries up to that nearly obtained over a large number of cases, about one in five.

As the late Professor Syme (who was notoriously unsuccessful in lithotomy) said, some men pride themselves in their number of successful cases; but when there are a great number, the average is about the same with the different operators. Time forbids me from detailing the various steps of the operation, and I will content myself with stating that great care should be taken to have the neck held without any twist, and the incision fairly in the centre; to properly clean the larynx or trachea before opening it, if there is time; and have all arterial bleeding stopped before this is done—venous bleeding generally stops on the introduction of the canula, though it is sometimes necessary to tie a vein or two. Then, if the tube should become closed with membrane, it may be necessary to withdraw it, and use the dressing forceps to extract the membrane, which is frequently loose. I lost one patient from this cause on the table, and in this case the disease commenced in the air passage, and nothing was to be seen in the fauces. The case was a remarkably rapid one, having been ill only about fifteen hours, and the parents, who were always very anxious about their children, did not apprehend any danger. At once when I saw the child, I went for assistance, and proceeded to operate with the above result.

I believe in this case—a girl of about two years of age—death resulted so rapidly from the profound effect the poison had upon the system, for diphtheria is a general more than a local disease. The *post-mortem* revealed the tube *in situ* all right, and tough membrane extending down the trachea. I had another death on the table—a child a year old, who died before I could get in the tube. I do not know that I would operate on so young a child again, though in Penicuik I did,

and the child lived some hours. Most of the cases that have come under my observation have lived for days, frequently $3\frac{1}{2}$, when they died from re-formation of the membrane, which in some cases extended into the bronchi, and was as small as a stocking wire. It was quite firm, almost like a strip of bladder, and could be pulled out, showing the branching off of the bronchi. This is no mere theory, and was actually seen on *post-mortem* examinations, and I long kept such a specimen, taken from a boy, 5 miles from Penicuik, who did well for three days, and then suddenly died asphyxiated. Three cases occurred in the same family in Penicuik, for some families appear more subject to this and other zymotic diseases than others. One was dying from the blood poison more than want of breath, and did die—a delicate girl about two years of age; a sister, about two years younger, was sent to Edinburgh Royal Infirmary, was operated upon, and recovered; while the third case recovered at home without the operation. A circumstance which has been mentioned by writers occurred in this case; somehow the sacrum got abraided, and a distinct membrane formed over it.

At the risk of being tedious, let us consider the best time for operating, and the cases most likely to be successful.

First, then, it does not appear to be good practice to wait till the patient is *in extremis*, with the brain and nervous centres supplied with unoxygenated blood, and the powers of life reduced to their lowest ebb. Nor is it good practice to open the trachea as long as life is tolerably carried on, as we thereby lessen the expulsive effort; but if we find the case gradually getting worse, and perhaps, after the trial of an emetic of sulphate of zinc, which is the least depressing of these remedies, and perhaps the most certain, there is no improvement, then is the time to assist Nature to battle with this dire disease.

Here I would mention a case two miles from Helensburgh, where Dr. Henderson and myself thought the system too much affected by the blood poison (in fact, causing death more than the want of breath) to operate. And what was the result? The girl, about five years, coughed up all the membrane, the throat became clear, and though she was on stimulants and iron and every good thing, the heart's action became excited, passed into a gallop, and she died some days after from exhaustion, or the effect of the blood poison on the organic system of nerves. The effect of the poison frequently causes paralysis of palate, &c., as I have seen. This brings to my mind the case of a girl, aged 20, in Dr. Warburton Begbie's wards in Edinburgh Infirmary in 1864, where there were both

paralysis of the palate and paraplegia for a time. The paraplegia did not last long, but the nasal voice remained for many weeks before it ultimately disappeared.

Second. The cases most likely to be successful, as a general rule, are where the child, say, is above three years of age; where the air passages have become secondarily affected, and the disease has, so far, run its course, and the membrane is beginning to get pultaceous and loosened, or separating in the fauces. Where it commences in the air tubes, and the operation is demanded early, the case is much less hopeful. Also, if the membrane in the fauces is of a pearly, glistening appearance, and firmly attached to the tissues beneath; if the disease has continued for some time, the prognosis is bad, as the following case illustrates. A servant girl, above 20, was sent into the hospital in Helensburgh after I had seen her in consultation, and who had had the disease. The membrane for a week presented a pearly, glistening appearance, the breathing got more and more difficult, tracheotomy was performed, and membrane coughed up, but she died in a few days from re-formation of it, as proved by *post-mortem*. In this disease, as in many doubtful ones, the value of *post-mortem* examinations cannot be over-estimated, and though they both take up time and are disagreeable to the busy practitioner, as well as supposed to be dangerous to some other cases, yet more is frequently to be learned from them than from observing the course of the disease; nay, much more in some cases. A *post-mortem* reveals some error in diagnosis or prognosis, or it may be in both, while in many others it proves both to have been correct. Some men in the medical as well as other ranks of life, however, never make mistakes, and I heard an old practitioner in Glasgow say that with perchloride of iron and chlorate of potas., he never lost a case of diphtheria. He is dead now, and was not a very successful practitioner. It is only a wise man that gets wisdom from his errors and failures. So much for tracheotomy in diphtheria.

I can only allude to a case of a boy some years ago, where I opened the windpipe for syphilitic ulceration of the laryngeal cartilages, with immediate relief, for he was on the point of death, and this summer I had the satisfaction to hear that, in a hospital in England, they had removed the tube which had been in for years, and he was able to do without it. For foreign bodies, this operation is also sometimes necessary. I cannot omit to mention a case of aneurism of the aorta where, from pressure upon the trachea, bronchiotomy was suddenly called for. The patient, a servant in a medical man's family, had some spasms of difficult breathing, was sent to Dr. War-

burton Begbie's wards; he saw her during his visit, between twelve and two o'clock found little wrong, and yet, during the night—the night of the Winchburgh accident—it was necessary to open her windpipe. The ordinary tube did not go past the aneurismal tumour, consequently, did not relieve her, and resource was had to a piece of stomach tube, which had to be removed frequently to allow her to swallow. She lived $3\frac{1}{2}$ days, and sank from exhaustion; but, as the *post-mortem* showed, she could not long have survived, as the tracheal rings were nearly ulcerated through, from the pressure of the tube and aneurism, the coats in front of which were very thin, and there must soon have been hæmorrhage had life been much prolonged. Let me ask in one sentence how important life would be to many in getting their affairs arranged even for the short space of $3\frac{1}{2}$ days. Opening of the larynx or trachea may also be necessary in carbonic acid poisoning, in cases of choking, and in operations on the mouth or throat as a preliminary proceeding.

I am afraid, gentlemen, that this part of the paper has grown so much in spite of my efforts to keep it within bounds for practical and experienced men, that I have little room to say much on abdominal obstructions, without unduly trespassing on your valuable time. Let me premise that it is not always easy to make out whether or not the case is one of inflammation or obstruction, especially if the case is not seen early, and strong and injudicious purgatives have been too long persevered in, for in many cases of inflammation of the bowels and peritoneum, the bowels will not act, except after the inflammatory action has been subdued with calomel and opium—the latter of which is our sheet anchor—and I have frequently got the bowels to act with this remedy, after a week or ten days spontaneously, or with a little castor oil and a large soap and water enema.

The pulse and temperature in the early stage should, however, as a rule, indicate whether we have a case of peritonitis or one of obstruction to deal with; if there is the history of a rupture or hernia, which has been roughly handled by the patient or otherwise, with severe pain, anxious expression, and vomiting, and by and bye these symptoms are accompanied by tenesmus and desire to go to stool, with the pain rather relieved than increased by pressure, and confined near to one spot, we may almost conclude we have intussusception to treat and not enteritis or peritonitis. A case occurred to me in the Penicuik district, which was a very typical one. A farm labourer, suffering from inguinal hernia, handled it rather roughly on the Thursday night; on the Friday I saw

him, and he was then suffering all the symptoms of obstruction. He was made as comfortable as possible (after the administration of a purgative calomel, 10 gr., pulv. jalapæ, 15 gr., which had no effect) by 2 gr. of opium every three hours: and here it is necessary to repeat that opium is the remedy most calculated to relieve pain, stop vomiting; and, in my opinion, it even has a specific effect in inflammatory affections, especially in the abdomen, and lets the patient die more easily, while with its use I have never seen that fearfully stercoraceous vomiting we read of. But to come back to this man's case; on Saturday he was no better; opium continued, which relieved pain and vomiting. On Sunday, Dr. Warburton Begbie saw him with me, agreed that it was probably a case of intussusception, and, to quote his own words, "Well, dear man, if opening the abdomen were justifiable, this is a case for it." I asked if he would give his sanction to my trying it, but he said he was not prepared to do that. As you all know, abdominal surgery has made great progress within the last twenty years, and large tumours are removed from the abdomen, such as ovarian, with a greater success than amputation of the thigh, and *that without* carbolic acid, though twenty-five years ago Professor Syme taught that ovariectomy was not a justifiable operation. Sir James Simpson did much to advance abdominal surgery, even removing the whole uterus with a fibroid weighing above 30 lbs., and, though not very successful, by his advocacy he gave ovariectomy a start. After this digression, we must return to the case. Well, he died on Monday of collapse. *Post-mortem* showed the small intestine slipped into the cæcum for about twelve inches, and highly inflamed. Another case of a young child, a few days old, occurred to me, where the same condition existed to a smaller extent. This case suggests to me another where the hernia had been roughly handled, with very much the same symptoms to a less degree, where I tried introducing water by a long tube from a considerable height. A good quantity went into the bowel, but neither relieved the symptoms nor caused action of the bowels.

Post-mortem examination revealed, in the latter case, a curious condition—viz., ulceration of large bowel and cæcum, and the water actually was forced into the scrotum on the one side, which was quite distended. I mention these two cases to show that it is not always easy to come to a correct conclusion as to the exact nature of the lesion.

This brings us to the question of operation. It appears to me that having tried all reasonable means to relieve the obstruction—which, if complete, as in intussusception, must speedily end in death—a chance is afforded by abdominal

section, which should not be delayed till the impacted part has become gangrenous. Further, such operations should be left to a man who has made surgery his special study; and if of this class of cases, so much the better, as it is, even in the cadaver, far from easy to discover the site of the impaction. There is little doubt that abdominal section might have saved the first case I have mentioned, while in the second it could have been productive of nothing but harm.

In my practice an interesting and instructive case occurred last year, which Dr. Beatson saw with me, as well as two other medical men, where there was partial action of the bowels. In this case there was the gigot of mutton tumour in the region of the cæcum, eructation of wind, distention of abdomen, &c. Case during life diagnosed as obstruction of ascending colon. *Post-mortem* examination showed a grisly ring about the middle of ascending colon, only large enough to admit little finger, and about a quarter of an inch broad. This condition must have existed for a very considerable time, as occasionally he suffered from what was thought indigestion, and was put right with a few rhubarb, soda, and ginger powders. The last attack was brought on by a long fast, a piece of cheese, and principally perhaps by cold feet. Then, again, in cancer occluding the rectum, the question of removal crops up. Sir George Macleod operated in two cases for me, and they both enjoyed tolerable health for some time; but in both the disease returned, though I believe the operation saved them much suffering. Again, artificial anus may be required to save life for a time, and if the patient, after having had all the disagreeables after the operation placed before him, decides on operation, the surgeon is bound to do it.

There is another class of cases, to my mind more doubtful, of which some surgeons appear to have large numbers. I refer to removal of one or both ovaries. This is an extreme procedure, and not very often required. Such cases ought to be thoroughly detailed, that the profession might be able to judge, and bring their influence to bear on the operator. I say such cases ought to be detailed, and the report of them should not be, like Cæsar's commentaries—"I came, I saw, I conquered."

Apologising for the length and want of arrangement in this paper, I leave the discussion in your hands, conscious as I am of its many imperfections.

Note.—Since the above was written there has been another successful tracheotomy in Helensburgh; while in 1864, during my house-surgeonship at Peterborough, there was a successful case at my instigation.

CURRENT TOPICS.

GLASGOW UNIVERSITY COURT.—APPOINTMENT OF EXAMINERS IN MEDICINE.—At a meeting of the Court held on the 20th ult., all the members except the Lord Rector and Dr. Cochran Patrick being present, the following gentlemen were appointed Examiners in Medicine:—W. D. Halliburton, M.D., B.Sc., M.R.C.P., London, with special reference to Physiology; David Newman, M.D., F.F.P.S.G., Glasgow, with special reference to Pathology; George A. Gibson, M.D., D.Sc., Edinburgh, with special reference to Medicine and Clinical Medicine; William James Fleming, M.D., Glasgow, with special reference to Surgery and Clinical Surgery; the term of office is in each case four years.

OUT-DOOR VISITING BY MEDICAL STUDENTS.—There can, we think, be little doubt that the practical training of our medical students in Glasgow would be more complete and of much greater utility if some carefully regulated and well organised scheme of out-door visitation for senior medical students could be devised. One of the great advantages of the old apprenticeship system was the training which men got in dealing with disease in the homes of patients; with the disappearance of the old system, this valuable practical training also in great measure vanished from our medical curriculum. Many students make up for this defect in their practical work by becoming qualified assistants for a time, but this is no reason why out-door visitation should not form a part of the regular course, especially when we consider that a considerable number of our graduates pass directly from the class-room into private practice. We believe that in Edinburgh and Aberdeen, the system of out-door visitation is carried out with satisfactory results, and we would be glad to see a carefully considered scheme in operation in our own school. Among our students themselves there are not wanting indications that this method of practical training would be most acceptable. Various attempts have been made to organise such a system, but what is wanted is that the authorities of our large public hospitals should take the matter up, and see what can be done. In any attempt to organise out-door visitation by senior students, it is above all things necessary that nothing should be done which would tend to clash with the interests of private practitioners, or which would in any way prove injurious or dangerous to the interests

of those poor members of the community who might avail themselves of such a system of medical relief. If these essential precautions be always borne in mind, we see no insuperable difficulty in organising a plan of out-door visitation.

Our object at present is chiefly to direct the attention of our readers to the subject, and therefore any endeavour to formulate a scheme would be out of place. The following hints, however, may serve to indicate how the scheme might possibly be carried out. Out-door visitation might form a part of the practical clinical instruction given in the dispensary, and should only be undertaken by students of the third or fourth year. No patient should be visited by a student who had not been *first seen and prescribed for at the dispensary by a member of the staff*, who, if he thought it necessary, might ask one of his students to visit the case, to see that the treatment he had ordered was efficiently carried out, and to report to him the progress of the disease. In no case would we consider it right that the patient should first of all be seen and prescribed for by the student, or that the student should first of all be sent to a case, on an application for a visit being received. No patients, in our opinion, except those attending at the dispensary should be visited by students, who can have no legal independent responsibility in the treatment of any case. The student should never be the first person to see the case, and no case should ever remain throughout in unqualified hands, it being thus left with the student to decide whether it is necessary to call in the assistance of a qualified medical officer. It will be seen, then, that in our opinion the plan which works so well in connection with the Maternity Hospital would not be suitable for general medical out-door visitation. One difficulty, of course, which would need to be overcome would be as to how the attendance of qualified officers could be obtained in cases proving serious. The dispensary staff has plenty of hard work as it is, but in a scheme such as we propose *in which only dispensary patients are to be visited*, there would not be so much necessity for visitation by qualified medical men. In any other scheme district medical officers similar to those appointed in connection with the Maternity would be necessary, and it would also be essential to see that the duties of such an appointment were scrupulously performed. After all, in out-door visitation, it is not in the least desirable that any independent responsibility should be placed on the shoulders of the student. All that we think needful is that our students should have an opportunity of seeing and talking with patients in their own homes,

and of enforcing the advice which they have heard given at the dispensary. Such a method would also be of service to the physician or surgeon in the way of enabling him to keep a much closer watch over the progress of his dispensary cases, and of helping to minimise that great defect of dispensary practice—the disappearance from observation of important and interesting cases before the result is known. We trust that our cursory remarks may be the means of directing attention to this very important subject.

THE HOUSING OF THE POOR.—The amount of interest which this important subject has now aroused in Glasgow on the part of all sections of the community is quite astonishing, and in the attempt to satisfy the philanthropic aspirations of many anxious inquirers, Dr. Russell assures us that he is finding his energies taxed to the uttermost. In our January number, we gave a brief notice of what was then being done in the Town Council with reference to this matter, and at the meeting of that body held on the 18th ult., a report by the Special Committee on Unhealthy Buildings, dated 15th February last was read and approved, and ordered to be sent to the City Improvement Trustees for their consideration and remarks. The Special Committee, having reported on all the property in the area north of Osborne Street and south of Trongate, except that portion east of the Tron Church, which is involved either directly or indirectly in the operations of the Caledonian Railway, have come to certain general conclusions as the result of their inspections. The conclusions of this report, which the Health Committee agreed should be submitted to the Magistrates and Council for their information and consideration, are as follows:—

“1. The provision made for the disposal of the excrement of the inhabitants of these tenements demands immediate attention. Several places are noted where there is no provision whatever; but in our opinion the privy is in no case a sufficient provision for flatted tenements. It is never used, and cannot in the nature of the case be used, by females, and seldom by children. The result is that every sink is practically a water-closet, and the stairs, and courts, and roofs of outhouses are littered with deposits of filth cast from the windows. Some form of wash-out closet, in the proportion of one to every two, or at most three, families, ought to be provided, as far as possible in a back jamb. As to ashpit accommodation, where this does not exist, it ought to be provided, or a bell cart service instituted—the extra cost of which

ought to be defrayed by the proprietors of the defective property.

"2. The necessity of supervision by resident caretakers, responsible for the upkeep of the property, for the selection and supervision of the tenants and the collection of rents, was strongly impressed upon the committee. They found everywhere either tenants of the most reckless and profligate description in entire possession, and signs of neglect and destruction on every hand; or poor but respectable tenants struggling under leaking roofs, and without the convenience of civilisation to maintain cleanliness, or mixed in the same landing with neighbours whose riotous outbreaks and bad language and conduct penetrated the thin partitions, and made their lives miserable. All this would be remedied by resident caretakers in each block; and the proper use of the water-closets would also be secured.

"3. The Committee wish also to direct attention to the large proportion of the small houses in the property of the Trust which is farmed out in single rooms. One danger of this system is the distance between the tenant and the proprietor. There is first the tenant paying nightly 6d. to 8d. for one room; then the lessee paying £2, 18s. to £4 per annum to the factor; then the factor; and lastly the Trust. A complaint cannot pass from one end to the other of this chain. This is a system capable of great abuse, and, in the case more particularly of a public body such as the Improvement Trust, it ought to be very closely watched. The character of the lessee ought to be considered, and residence in person, or by a responsible representative, insisted upon."

The Housing of the Poor, however, is attracting the attention of other public and private bodies in Glasgow, as well as that of our civic authorities. The Glasgow Presbytery, the Ruskin Society, the Kyrle Society, are all vigorously moving in the matter. The Glasgow Presbytery has appointed a Commission to deal with this great social question, and on the 15th of February last, no less than five different Committees were appointed to carry on the work. The duties entrusted to these Committees are as follows:—(1) to collect and digest material already existing in printed form (Convener, Professor W. T. Gairdner); (2) to obtain information regarding remedial measures already attempted in Glasgow and elsewhere (Mr. Smart, Convener); (3) to select representative blocks of dwellings in Glasgow to be specially reported upon—(Bailie Dickson and Rev. Mr. Paton, Conveners); (4) to consider methods of procedure, and arrange for taking evidence (Con-

vener, Rev. Dr. Robertson); (5) to provide for the expenses of the Commission. The Ruskin Society has resolved to do all in its power to help on the work of the Commission.

We are further informed that the Housing Committee of the Kyrle Society is about, by private arrangement with the proprietor, to take charge of a tenement at the south corner of M'Alpine and West College Streets. A few ladies, under a superintending lady, are going to collect the rents, and endeavour to see to the sanitation and domestic comfort of the tenants. This is a small beginning for which they are very thankful, as the difficulties in Glasgow have been great in finding an opportunity to initiate this method, begun by Miss Octavia Hill in London, and followed in Edinburgh so widely, and in Dundee more recently.

In all this we have signs of a great sanitary revival, and we are not without hopes that, from the concerted efforts of so many, radical changes and improvements may result. The state of matters revealed in the Town Council Committee's Report is a disgraceful blot on our boasted nineteenth century civilisation, and it is perfectly clear that the time is fully ripe for active and stringent measures on the part of our municipal authorities. Gratifying as it is to find so many private societies and individuals taking active movement in the matter, it should always be remembered that all such efforts must ever be local and limited in their operation. If any real and lasting improvement is to take place in the housing of the masses, it must be effected by the central and municipal government of the country.

EPIDEMIC OF MEASLES IN GLASGOW.—The minutes of the Health Committee containing the usual fortnightly report by Dr. Russell, which were submitted to the Town Council on the 18th ult., stated that the number of deaths from infectious diseases of children was 100, as compared with 76. The epidemic of measles accounts for this increase. The number of deaths primarily caused by this disease has risen from 37 to 55. Of these 52 were of children below five years, the average age of whom was only 19·7 months. Of the 40 deaths from hooping-cough, 38 were of children below 5 years, the average age being 19 months. The addition to the death-rate contributed by measles is 2·7, and by hooping-cough 2 per 1,000. The number of cases of fever registered was 29 in place of 13—viz., 22 of enteric fever and 7 of typhus fever. There were also registered 541 cases of measles, 78 of hooping-cough, 48 of scarlet fever, and 28 of diphtheria, of which 108

were removed to hospital, and the remainder kept under supervision at home. The epidemic of measles is gradually moving over the city, from west to east, at present on the north side of the river. As it invades the poorer districts the mortality is rising. The energies of our inspectors and the resources of the department are severely tested by the rapidity with which the disease spreads, and the number of cases requiring attention at one time. It is interesting to observe the growth of intelligence as to the prevention of infectious diseases among the working classes. Some years ago, measles caused no concern among them; nothing but typhus or small-pox excited alarm among neighbours, or led to an appeal to the sanitary department. Now every day brings information as to measles, requests for assistance, protests from neighbours as to carelessness in using common washing-houses, &c. This progress, of course, throws a heavier burden upon the Local Authority, but it must be met.

We are also informed by Dr. John A. Kennedy that measles and hooping-cough during the past month or two have been present in an epidemic form in Bearsden.

THE VICTORIA INFIRMARY OF GLASGOW.—The First Annual Report of the Victoria Infirmary has just been issued, and we are pleased to learn from it that the work is well forward. The Report gives a full history of the undertaking from the 27th April, 1881, to 31st October, 1888, and will be read with pleasure by all who are interested in the hospital extension of our city. The Report was submitted to the First Annual Meeting of the Court of Contributors, which was held in the Merchants' Hall on Thursday, 6th December, 1888, at 3 P.M., the Hon. Sir James King, Bart., Lord Provost, in the chair. We have not space to refer to this interesting Report in detail, but cordially advise our readers to peruse it for themselves. The idea of an additional infirmary on the south side originated with the Southern Medical Society previous to 1878, and from this time the work has gone on, until now a considerable portion of the building is erected. The first sod was cut by the Chairman of the Committee on 4th July last, and the work is now considerably advanced. It is expected that the buildings will be completed and ready for the reception of patients by Autumn. The pavilion or ward portion of the buildings, now in course of erection, will give accommodation for 54 patients, and by the contemplated temporary application of a portion of the administrative block which will not, meantime, be required for administrative purposes,

accommodation will be given for 30 additional patients, or 84 in all. The cost of the buildings at present in course of erection, including enclosure walls and laying off the grounds, will be about £19,000, to which will fall to be added the expense of furnishing, estimated at £3,000, and making together £22,000. In order to take advantage of the bequest of the late Mr. Couper, of Cathcart, it was necessary to promote a Bill in Parliament, and the promoters seized the opportunity of making use of the Bill to incorporate a Body of Governors to manage the affairs of the infirmary. This Bill was accordingly promoted, and has now been passed into an Act under the title of "The Victoria Infirmary of Glasgow Act, 1888." Its provisions relate to the constitution, election, powers, and duties of the Governing Body, which consists of 39 members. Shortly speaking, these 39 consist of the seven Members of Parliament for Glasgow; the Members of Parliament for the Govan Division of Lanarkshire and for East Renfrewshire; the Lord Provost of the City of Glasgow for the time being; *two* members to be elected by each of the following bodies—viz., the Town Council of Glasgow; the University Court of Glasgow University; and the Faculty of Physicians and Surgeons of Glasgow; and *one* member to be elected by each of the following bodies—viz., the Merchants' House, the Trades' House; the Faculty of Procurators; the Glasgow Southern Medical Society; the Provost, Magistrates, and Council of the Royal Burgh of Rutherglen; the Magistrates and Council of the Burgh of Pollokshaws; and the Commissioners of Police of Kinning Park, Pollokshields, Pollokshields (East), Crosshill, and Govanhill. In addition, the Court of Contributors elect nine members, and, for the first time in the history of Scottish infirmaries, the workmen subscribing to the funds of the infirmary elect three members. The Act also gives power to the Governing Body and Mrs. Couper to make arrangements whereby she may surrender the liferent of the £10,000, for the purpose of its being handed over to the infirmary; and it provides that, on the expiry of the liferents affecting it, the remainder of the residue of Mr. Couper's estate shall be transferred to the Governing Body for the purposes of the infirmary. It is expected that very soon after the election of the first Body of Governors, Mr. Couper's Trustees will be in a position to pay the £10,000, under deduction, as arranged, of the expenses of promoting the Bill in Parliament. We congratulate the Governors and contributors on the satisfactory completion of their labours so far, and we heartily wish the undertaking every success.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—The sixth ordinary meeting of the Society will be held in the Library of the Faculty Hall, 242 St. Vincent Street, on Monday, the 8th inst., at 8 o'clock. The following cases and specimens will be shown:—Dr. Tennent—A specimen of cirrhosis of the kidneys, associated with congenital atrophy and malformation of the pelvis of the organs; Dr. Alex. Robertson—A specimen of a lympho sarcoma of the lung; Drs. Newman and Steven—A patient suffering from phthisis pulmonalis, complicated with hoarseness, due to paralysis of the left vocal cord; Mr. Maylard—Various plate cultivations of air organisms exhibited by illustrations of a new kind.

A. ERNEST MAYLARD, *Hon. Sec.*,
4 BERKELEY TERRACE.

J. LINDSAY STEVEN, *Hon. Edit. Sec.*,
34 BERKELEY TERRACE.

THE COLLEGE OF PHYSICIANS, PHILADELPHIA.—The first triennial prize of two hundred and fifty dollars under the deed of trust of Mrs. William F. Jenks, has been awarded by the Prize Committee of the College of Physicians of Philadelphia, to John Strahan, M.D., M.Ch., (Royal University, Ireland) Belfast, for the best essay on "The Diagnosis and Treatment of Extra-Uterine Pregnancy." The writers of the unsuccessful essays can have them returned to any address they may name, by sending it and the motto which distinguished the essay, to the Chairman of the Prize Committee, Ellwood Wilson, M.D., College of Physicians, Philadelphia. The Trustees have made arrangements with Messrs. P. Blakiston, Son, & Co., 1012 Walnut Street, Philadelphia, for the publication of the successful essay, which will also appear in the Transactions of the College for 1890.

REVIEWS.

The Student's Handbook of Forensic Medicine and Public Health. By H. AUBREY HUSBAND, M.B., C.M., B.Sc., F.R.C.S.Ed., &c. Fifth Edition. Edinburgh: E. & S. Livingstone. 1889.

THE success of the student's text-book may now be said to have reached its highest point, the demand being evidenced by the competition in rival series by different publishing firms.

In face of such a success, it would serve no good purpose, were we inclined, to say anything against this form of text-book which, in the opinion of not a few, tends to the habit of cramming, for, in spite of all that has been said, or is likely yet to be said, students will adopt that book which will enable them the most easily to acquire knowledge of a subject, and they argue that during their student life they have not the time to digest the more bulky and more exhaustive treatise.

After all has been said, book knowledge as contrasted with practical knowledge can be easily tested at the examining board, in most of the subjects of examination, except that of medical jurisprudence, for it is unfortunately but too true that, generally speaking, the only kind of knowledge of the subject acquirable by the student is that of the lecture room or text-book, and that little or no opportunity is afforded him of seeing practical jurisprudence, except in the department of toxicology. A practical knowledge in some degree frequently means to a medical man in the witness-box all the difference between comfort and discomfort, and we have often thought that as in Paris, so in Glasgow, facilities might be obtained for the practical study of forensic medicine in the abundance of material our police offices secure.

In these circumstances, it becomes necessary that the text-books put into the hands of the student should be accurate, and, as far as possible, complete. Among these, none has been so deservedly popular as the one presently under review.

Issued in a neat, portable form, its matter well printed and well arranged, and singularly free from typographical or other errors, this edition is calculated to keep the position it has attained. It differs very little from the previous editions, additions being chiefly made in the section on public health, which forms more than one-third of the contents. There is here and there, however, a tendency to run too much into summary and tabulation, but that to many students is more a recommendation than otherwise.

In reviewing its contents, we notice occasional points which have been overlooked, and points which have been included which might have been omitted. The only omission in the interesting chapter on criminal procedure that we note is in reference to the Coroner's Court, and that is, the form of summons which entitles the medical witness to a fee, and which is taken from the Medical Witnesses Act, Sch. A 6 and 7, Will. IV, cap. 89; in this chapter, too, might have been incorporated the fees allowed by the law for police services, and the method to be followed in securing them. The chapter

on medical evidence contains succinctly all that the witness ought to observe while in the witness-box, the kind and style of language he ought to use, and all about the form and legal nature of written documents. These are points which ought to be attended to, since recent strictures by judges point in the direction that medical evidence is not appreciated as it ought to be, for, while we recognise the legitimate differences in matters of opinion, we cannot reconcile such differences as to matters of fact. Has the time not arrived when, in cases where serious conflict of medical opinion is likely to arise, it should be urged that a medical assessor be attached to the bench to guide it in deciding questions for which neither judges nor jury is competent?

On the subject of real or apparent death we observe that Casper has been closely followed, but nothing has been said of the capillary circulation test or the hypodermic injection of strong ammonia.

The chapter on Wounds has been carefully put together; but while it is true that wounds produced by a sharp instrument are often "somewhat spindle-shaped" (p. 78), it must be borne in mind that they may be of almost any shape from glass or earthenware. We have seen abundant evidence of this. In dealing with lacerated wounds, over bony ridges which simulate incised wounds, our author omits to notice the help we often obtain from a careful examination of the hair bulbs by a small magnifying lens; and in treating of gunshot wounds we find the tradition of the text-book preserved—that is, the condition of the gun barrel as affording evidence of the approximate date of its being last fired. This should have no part in medical jurisprudence, and we think that a medical jurist ought to have no opinion to offer on such a question. *Ne sutor ultra crepidam*. Let an expert be called. While we agree with the author as to the absurdity of the doctrine of "spontaneous combustion," we fear that he does the late Professor Ogston an injustice in regard to it. At page 91 Mr. Husband states that Ogston "cautiously avoids committing himself to the belief in spontaneous combustion." We had always understood differently, and on referring to that author's work, p. 463, we find he lays it down clearly as his opinion that *spontaneous combustion* "may now be safely set aside as inadmissible." The only question which he leaves open is that of "preternatural combustibility" under certain circumstances.

In dealing with Injuries to the Body, while the author alludes to the possibility of internal organs—abdominal—

being seriously injured without any external mark whatever, we think that it might profitably have been more emphasised. We have seen such cases, and have put on record a very typical one.

Too little attention, in our opinion, has been paid to the facial phenomena in death by suffocation. Our experience in examining students leads us to state that they fail to grasp a true picture of such a death from the description given in the book. The type of death by suffocation in the student's mind is associated generally with congestion of the face, livid lips, bloody froth at mouth, and staring eyes. This, we know, only rarely happens. He has a difficulty in thinking that this form of death may be associated with quite a different set of facial phenomena. We know of no text-book yet published where this subject is put clearly before the student, and we think that it is so important that it seems to us a grave omission, for a serious error of judgment might result in cases of overlying of infants, the accidental suffocation in states of unconsciousness, and as a result of pressure in panic-stricken crowds.

Death by drowning has been fully dealt with. We agree with the author's description generally when he says that the face of those drowned whose bodies are soon recovered "is pale and in most cases not swollen;" but this is not always the case. We lately examined two bodies—one of a man drowned in a canal on a frosty night; the other of a man drowned, while intoxicated, in a small puddle of water on a bitterly cold night—when the colour of the lips was a rosy red, almost arterial in hue; and in speaking of the wounds or injuries found in the bodies of those drowned we notice the author neglects to note the possible production of such after death, particularly in canals, by the propellers of passing boats or by boat hooks, &c. We have frequently seen these, and have experienced considerable difficulty at times in deciding whether their origin was *ante-* or *post-mortem*, although generally their character, their variety, and their position help to the solution of the question.

Death by starvation is dismissed in a page. We think the subject more important than this, and we note that the question—a very difficult one—how far evidence of disease in such cases stands in the relation of cause or effect, has not been discussed. This was all important in the notorious Penge case, where, it will be remembered, four persons were charged with wilfully starving a woman, were found guilty, and were sentenced to death.

Some evidence of tubercular meningitis was found at the *post-mortem* of the deceased, and immediately after the sentence considerable difference of opinion was discovered in the medical press as to the rôle played by the disease. This expression of opinion became so clamant that the authorities commuted the sentence of the accused to imprisonment for life.

In the chapter on death by lightning, it is noticeable that the author has omitted, in enumerating the lesions found on the bodies, those strange arborescent-like markings, with which the readers of this *Journal* were made familiar by an excellent photograph illustrating a paper on this subject in November, 1883; and in this connection, we are not a little surprised to find that no allusion has been made to deaths from electricity. Now that the State of New York has adopted this agent as the means of carrying out its judicial homicides, and now that several deaths—at least half a dozen—have been recorded from this cause, the medical jurist must add another to the already long list of particular forms of death, and the text-book on forensic medicine will require to take cognisance of it.

The chapter on rape is excellently written, but more emphasis might be laid on the state of the law *quâ* the examiner of those assaulted in this way. No medical man, not even a police surgeon, is entitled to proceed to an examination where the least reluctance is displayed on the part of the assaulted, much less where refusal is made, for otherwise he lays himself open to a charge of assault and battery, or a civil action for damages. Our practice is always to obtain consent in presence of witnesses, either from the person herself, or from her legal guardians. While no examination is complete without careful scrutiny of the parts or of the stained linen for spermatozoa, surprise need not be excited if they cannot be found, for, although we have had many opportunities of examination, we have rarely found them. In cases where there has been evident penetration, it is important to examine the vagina also, and experience has led us to adopt a pipette or dropper, pencil-like in shape, which can be painlessly introduced, any moisture present sucked up, and transferred directly to slides for microscopic examination. Examination of the accused should never be omitted, for evidence of injury or venereal disease. In one of our cases, rupture of the frænum was present, and the man pled guilty. The reason for examining for evidence of the latter is necessary by reason of a tradition that exists among the lowest

classes that such diseases can best be cured by coition with a virgin female.

It should be borne in mind, too, that rupture of the hymen may be produced by an assault on the genitals by the fingers. In a very recent case in which we were engaged, complete rupture was produced in a child of six years by the fingers of a man who pled guilty to the charge.

The chapters on pregnancy in its medico-legal relations are very complete, but the subject might be illustrated a little more fully by references to typical cases. The attention of the profession might be directed, with a view to reform, to the solecism that still obtains in the jury of matrons appointed to examine a woman who pleads as a bar to execution her pregnancy of a quick child; so also to the rulings *quod* live birth which permit that a mother may destroy her offspring before its complete birth, and still not be chargeable for murder.

The chapters on infanticide and insanity are excellent. The unsatisfactory state of the law *quod* those who sign lunacy certificates, as shown by the results of recent cases, ought to arouse the profession to adopt measures to expedite the passing into law of the Lunacy Acts Amendment Bill, which has hung on the legislative tenter hooks so long.

The subject of Toxicology has been as fully entered into as the limits of the book could permit, and the different poisons—their action, their detection, and their antidotes—sufficiently described. The author, however, quite omits to notice the value of the syphon-tube in cases where the stomach-pump is used. We have found it of considerable service. It has the following merits—It is not complicated, cannot go out of order, is easily carried about, and is less likely to do injury to the walls of the œsophagus or stomach than the stomach-pump, and it serves all the purposes of the latter instrument.

We should have liked, as a sequel to the chapters on somniferous and deliriant poisons, something more said on the differential diagnosis of states of insensibility, for this is the most difficult and trying work of the medical jurist. Police and hospital practice fully illustrate this.

In speaking of alcoholic poisoning, the author omits mention of the more recent form of depraved debauchery by methylated spirits. The pupillary conditions are not satisfactorily mentioned, and the use of the rectal thermometer in diagnosis, and of the hypodermic use of apomorphia in treatment are wanting.

The section dealing with public health is worthy the atten-

tion of students whose time will not permit the study of more exhaustive treatises. The whole of the chapters are compendious and fairly complete, and not the least valuable parts of them are the formulæ used in ventilation and sewage, and the variety of information crowded into the appendix.

We think that we have said more than enough, perhaps, to show that the book adequately meets the purpose for which it was written—viz., as a students' handbook.

A Text Book of Physiology. By M. FOSTER, M.A., M.D., LL.D., F.R.S., Professor of Physiology in the University of Cambridge, and Fellow of Trinity College, Cambridge. Fifth Edition, largely revised. Part I, comprising Book I: *Blood—The Tissues of Movement—The Vascular Mechanism.* London: Macmillan & Co. 1888.

ALL who are interested in the development of physiological science will learn with pleasure that a new edition of Foster's valuable *Text Book of Physiology* has recently been issued. So great have been the advances made of late years, so much more extensive and accurate has physiological knowledge become, so much clearer is our insight into the profound and intricate problems presented by the phenomena of life, that even the best physiological treatises require constant revision and remodelling. To this rule, Dr. Foster's book forms no exception. Indeed so much has the bulk of the material increased, that he has found it necessary to issue his latest edition in three volumes—this, the first, being devoted to a discussion of the blood, the tissues of movement, and the vascular mechanism.

In deference to a long-felt want, paragraphs have been introduced embodying the most advanced views as to the histology of the tissues concerned. While these give a very clear and accurate description of the parts, we cannot but feel that the details would have been more permanently fixed upon the mind of the reader if diagrams had been added, showing at a glance the points mentioned.

As the author states in the preface, he has made considerable changes and additions, but has tried to maintain the character of the book as presented in former editions. One cannot but be struck with the orderly method in which the various topics are marshalled and elaborated, with the judgment shown in the presentation of important facts, and the due subordination of minor details, with the author's evident grasp of the subject, so that he can not only deduce new and

striking conclusions from evidence already to hand, but can indicate the exact point at which we have arrived, and in what direction further researches must be pursued.

We have thus a clear, lucid, and concise exposition of the science as it presents itself to the author's mind. Those, however, who are watching the evolution of opinion on physiological topics would perhaps have been better satisfied had there been a somewhat fuller statement of the views of different observers, and had greater prominence been given to the names of those by whose agency our present position has been attained. Thus, for example, in the section on the clotting of blood, we find no mention of the name of Dr. Andrew Buchanan, who was undoubtedly the first to suggest the probable cause of this phenomenon; nor is Schmidt, to whom the honour is usually assigned, referred to otherwise than incidentally. It may, no doubt, be maintained that science is impersonal, that what the student requires is a knowledge of the science and not of the names of those by whom its facts have been observed and its laws deduced, and that an account of the development of the science should be relegated to a history of physiology. Still, it must be admitted that if, while the science is advancing so rapidly, a writer confines himself only to universally admitted facts, there is a chance of important views being ignored, and that it is desirable to have a statement of most recent opinions with due reference to the sources from which they have been obtained. Thus, for instance, we find it stated (p. 37) that, according to some observers, coloured nucleated cells arise from colourless cells, while other observers hold that they arise from previous similar coloured cells; but we would have been better satisfied if names and references had been given, so that we might learn for ourselves upon what grounds the difference of opinion is founded.

The text book is now so well known that it is hardly necessary to explain its general plan. Suffice it to say that after a short introduction explaining the distinctive characters of living and dead bodies, and indicating the main problems of physiology, there comes a chapter devoted to the blood, whose composition and qualities are very fully discussed. This is followed by a chapter on the contractile tissues, describing the phenomena of muscle and nerve, and of ciliary and amœboid action, while a special chapter is devoted to the general features of nervous tissues, with exceedingly suggestive remarks upon reflex and automatic actions and the nature of inhibition.

The latter half of the book is occupied with a full account of the nature and action of the vascular mechanism. The sections devoted to the heart and the pulse contain lucid and instructive discussions of many much-debated questions, while the sections on the innervation and control of the vascular mechanism will open the eyes of many to the rapid advances made of late years in accuracy and in definiteness of knowledge of this subject, and to the great principle of the interdependence of nutrition and function, which is proving such a valuable aid in the explanation of vital phenomena.

A valuable feature of the book is the introduction at the end of each section of a brief summary of what has just gone before, thus bringing the various rays to a focus, and impressing the results clearly and forcibly on the mind.

There is no index to the volume, but the want of it is amply atoned for by the complete and elaborate table of contents.

From the appearance and value of the present part, the second and third parts will be eagerly looked for and welcomed. There is no more valuable physiological treatise than this, and its worth is too well known to need commendation from us.

The Physician as Naturalist: Addresses and Memoirs on the History of Medicine, chiefly during the last Hundred Years. BY W. T. GAIRDNER, M.D., LL.D., Professor of Medicine in the University of Glasgow, President of the British Medical Association, Physician in Ordinary to H.M. the Queen in Scotland. Glasgow: James Maclehose & Sons. 1889.

THIS is in every way a notable book, a specimen of medical literature at its highest level, being a collection of essays representing what is best and highest in professional thought and ethics, at once a vindication of freedom of thought in matters scientific, a laudatory defence of the progressive scientific medicine of to-day, agnostic till it knows, and a confession of religious faith, reverent and humble, becoming those brought daily face to face with mysteries whose solution lies "within the veil." The essays are marked by originality and suggestiveness, frankness and honesty of exposition, which never shirks an apparent difficulty, keen and incisive argument, which leaves no dubiety as to exact meaning, fairness and sympathy, which would find what remains of truth in an exploded system or a strained theory, aptness of reference and quotation, the outcome of wide reading and ripe scholarship,

and withal a genial and graceful literary style, which irresistibly remind the reader of that kindred spirit and prince of medical litterateurs, Oliver Wendell Holmes. To most of our readers the book will commend itself as being also a vindication of the historical and present claims of the Scotch Universities as nurseries of scientific medical teaching.

The essays, twelve in number, are selected from writings published in various quarters during the last thirty-three years, and Dr. Gairdner claims that "in these papers, though written at widely different times and on various occasions, there will be found a fairly consistent purpose and undercurrent of thought," and that while there is no attempt in them to formulate any distinct system, they set forth various broad, general, principles which have guided his teaching and practice during that time. These principles, formed in a school the quality of which is shadowed forth in the memoir of Dr. Alison, have been carefully and impartially tested at every stage of more than thirty years' work, and having stood the test of wide and varied experience, are enunciated in the address of last year, as being confirmed by that experience, consonant with "the spirit of the age" in all branches of science, and not inconsistent with all that is good in the traditions of the past. Broadly stated, the principles are that the physician must be a scientific student of nature rather than a scholar in tradition; that distrusting all stereotyped formulæ or "orthodox systems" of doctrine, he must study things, not words; that in his studies he must use the experience, if not the theories, of his predecessors, but chiefly the exact experimental methods of modern science; and that he must regard his patients as deranged organisms in which natural forces are striving to overcome obstacles to their proper action.

The essays are twelve in number, and are not chronologically arranged. Re-arranging them roughly according to subjects, they are as follow, given with dates of original publication.

XI. The Present Aspect of Medical Science—Old Orthodoxy and Modern Opinion. University Introductory Address, 1866.

II. Has the Art of Medicine Advanced during the last Hundred Years? Address at Dublin Meeting of British Medical Association, 1887.

I. The Physician as "Naturalist." Presidential Address at Glasgow Meeting of British Medical Association, 1888.

These three may be regarded as in direct series, and deal with general principles, considered historically and otherwise.

VII. Mind and Body. Presidential Address at the Glasgow Meeting of the Medico-Psychological Association, 1882.

VIII. Sanitary Science and Preventive Medicine. Sectional Presidential Address at the Glasgow Meeting of the Sanitary Institute of Great Britain, 1883.

IX. The Progress of Pathological Science: John Baptist Morgagni and his successors. Inaugural Presidential Address to the Pathological and Clinical Society of Glasgow, 1874.

These three illustrate the application of general principles in special fields.

III. Facts and conclusions as to the use of Alcoholic Stimulants in Typhus Fever, 1864.

IV. Course of Typhus Fever, and Phenomena of the Crisis, 1864. The latter part of this clinical lecture is now published for the first time, and there is an appendix on Milk Diet, written last year, which is practically a new chapter.

V. Two Months of Fever Duty in the Glasgow Royal Infirmary, 1865.

VI. On the Limits of Alcoholic Stimulation in Acute Diseases, 1868.

These four essays show how fruitful the general methods and principles taught by Dr. Gairdner may be made when applied clinically, and how knowledge thus gained may be again expanded into general principles. Readers will note that, as one reward, Dr. Gairdner has had his epitaph, in choice Latin, "*Lacte non vino*," very prematurely we hope, provided for him.

X. Homœopathy, 1857. This is interesting, as demonstrating such principles and methods as the touchstones of a system, and is probably a more thorough refutation, if it were possible, of the doctrines of homœopathy, than the better known essays of Begbie and O. W. Holmes.

XII. Dr. Alison, 1859. This memoir is very interesting, as dealing with a brilliant period in the history of the University of Edinburgh, and valuable as being the only memoir of a notable physician that ever appeared.

We would commend this volume to every thoughtful practitioner. To many of Dr. Gairdner's former students it will become a valued souvenir of a revered teacher.

On Gonorrhœal Infection in Women. By WILLIAM JAPP SINCLAIR, M.A., M.D., &c. London: H. K. Lewis. 1888.

THIS volume is to a large extent a reprint of papers which appeared in the *Medical Chronicle* from May to October, 1887.

It has been partly re-written, and the substance of the most recent contributions to the subject which seemed to the author to contain anything of value has been introduced. He "has undertaken the work in the hope of doing his part in arousing the profession in England to some interest in a subject which he earnestly believes to be of vast social importance, and full of promise from the point of view both of the social reformer and the practical physician."

The opening sentence of the volume will alike explain the author's views on this question, and cause most practitioners to rub their eyes and wonder what they have been about for years past, that they have not sooner recognised the very serious state of matters that is averred to exist. "Gonorrhœa as it occurs in the female sex is still in this country strangely neglected by general practitioner and specialist alike. Its symptoms, its differential diagnosis, and the ravages which are its immediate or remote results, are hardly recognised or understood, and the treatment of it, as ordinarily practised, is contemptible. Yet the virus of this disorder gives rise to a group of diseases, a series of pathological conditions, which, by reason of their clinical interest and their social and moral consequences, surpass in importance any other class of affections with which the gynæcologist is called upon to deal." "Chronic discharges, metritis and endometritis, salpingitis and pyo-salpinx, ovaritis, peritonitis, derangements of menstruation, sterility, and a variety of complications and combinations of these diseased conditions," according to Dr. Sinclair, are frequently the result of the gonorrhœal virus, and he adds that there can be no doubt that of the more serious pelvic diseases, a large number of the apparently puerperal septic cases are of gonorrhœal origin. After relating several typical cases illustrating "various phases of the disease," the author gives a short historical retrospect, which he divides into three periods—(1) Before Noeggerath's treatise on *Latent Gonorrhœa in the Female Sex* appeared; (2) Noeggerath's work and immediate influence; and (3) Neisser's discovery of the *gonococcus*, the micro-organism characteristic of the disease. He then describes the methods to be followed in examining suspected secretions; discusses the clinical significance of the *gonococcus*; enters fully into the clinical phenomena of the disease in the acute form and in "the chronic or creeping form," and the consequences of gonorrhœal infection to the individual; and concludes with a chapter on the treatment and prophylaxis of the disease. We cannot but think that the views adopted by Dr. Sinclair are too extreme. At the same

time we would earnestly recommend a careful perusal of this volume, as it will arouse attention to the subject, and lead to "unemotional observation towards the elucidation of the points yet in obscurity," which is what the author desires.

On Syphilitic Diseases of the Nervous System: their Diagnosis and Treatment. By T. M'CALL ANDERSON, M.D. Glasgow: James Maclehose & Sons. 1889.

THIS little book of Dr. M'Call Anderson's consists of notes more or less complete of twenty-four cases diagnosed and treated as syphilitic; a chapter on general diagnosis; and a chapter on treatment; with an appendix containing the remarks of various speakers in the discussion which took place at the meeting of the British Medical Association held in Glasgow last Autumn, when the title subject was brought forward for consideration.

Many of the cases reported are interesting, but we do not think that all bear out conclusively the diagnosis arrived at (e.g., Case 1). We would quote, in this connection, the author's own words, which are very apposite—"Although there is conclusive evidence that the patient has contracted syphilis, or even if he presents unmistakable symptoms of that disease at the time, it does not follow of necessity that the disease of the nervous system is syphilitic, for there is nothing to prevent a syphilitic subject from having a non-syphilitic nervous trouble." We agree with the author in thinking that no syphilis should be considered "mild" or treated in a "cavalier fashion;" indeed, we go further, and say that notwithstanding the proper treatment and progress of his cases, most of them were not cured, and none are safe from relapse. An analysis of the twenty-four cases shows that only five of them can be considered as even temporarily cured, the remainder exhibiting merely different degrees of improvement. It may very well be doubted if syphilitic disease which has got hold of the nervous system is ever permanently cured, although remarkable benefit certainly results from judicious treatment, as is shown in many of the cases quoted. The author's remark that "some of the most brilliant results are achieved by mercury in old standing cases of syphilis, and sometimes after iodide of potassium has failed," is quite in accord with our own experience, and we think that inunction, which he favours, is one of the most effectual methods of administering mercury in such cases as he describes.

Elements of Practical Medicine. By ALFRED H. CARTER, M.D. Lond., &c. London: H. K. Lewis. 1888.

THE fact that in eight years this work has reached a fifth edition, rightly entitles the author to indulge the feeling, expressed in the preface, that the volume in question has met a distinct want, and to feel gratified over the acquisition of an extended circle of readers. But this feeling of gratification must rest on a very doubtful foundation, when we remember that the book belongs essentially to that class of work which encourages "cram." The work shows that the writer has carried out his idea of providing the student with a series of short sketches of disease, but the facts are so crowded together, without in most cases any explanation of phenomena being attempted, that the reader finds no relief from the rapid succession of statements which pass before his eye. If one could feel certain that, after passing his examinations, the young practitioner would extend his knowledge by studying larger works, these remarks would not apply, but it is to be feared that in too many instances the most familiar work is appealed to in case of difficulty, and the risk is that such works as that now under consideration may form the practitioner's sole library.

Apart, however, from these objections, which apply to the class to which the *Elements of Practical Medicine* belongs, rather than to the style of that volume, we may say that the work is well and clearly written, the descriptions being clear and truthful. The writer, however, is a little careless about some of his definitions, and now and again sacrifices truth to effect—e.g., on page 3 we are told that hæmorrhage from the bowel is called "melæna"; surely also "hydrocephalus" means more than "dropsy of the cerebral ventricles." *Boiling* with liq. pot. is not, so far as we can discover, a recognised test for pus.

Nerve Prostration, and other Functional Disorders of Daily Life. By ROBSON ROOSE, M.D., F.C.S. London: H. K. Lewis & Co. 1888.

THIS is a clever book, of good literary style, and may, under certain circumstances, be of very considerable utility; but that it makes any addition to scientific medicine may very well be doubted. It is essentially the work of a man in large private practice, who has a flowing literary style. The work of a scientific physician it could not be—if it were, it would not redound to his credit. This being so, the work may be useful

in those exigencies of private practice which are often worrying and provocative of temporary anxiety, but which have little or no bearing on the great general principles—the fundamental truths—of the healing art. Dr. Latham, a well known and much honoured authority on medical education in his day, has warned us to beware of those medical treatises which are possibly intended as much for the lay as the professional reader. Perhaps the warning might not be altogether out of place in the present instance. The effort to emphasise and perpetuate the distinction between functional and structural disease is contrary to all the scientific aspirations of our day, and is one from which certainly no good can come—let us hope that no actual evil may arise from it. The attempt to consider many of the diseases treated of in the book as mere derangements of functions as apart from structural changes seems to us to be continually breaking down—in fact, no real demarcation can be made out. When, in a work dealing with functional diseases *per se*, we continually meet with phrases and terms, such as, “inflammatory processes,” “principal lesions,” “local anæmia,” “chronic catarrh of the tubes,” “fluxionary hyperæmia,” “catarrhal expectoration,” “atheromatous degeneration in the aorta and coronary arteries,” “laryngeal growths,” “catarrhal swellings,” &c., we are almost of necessity forced to this conclusion. No man, who has frequent opportunities of testing his practice in the fierce light of the *post-mortem* room, is inclined to believe much in the extensive prevalence of merely functional disease, and this is a test which is largely beyond the power of the private practitioner, however great his practice may be. As a scientific work the book entirely fails. The utility of the volume consists in the numerous hints as to treatment which it contains.

A Practical Text-Book of the Diseases of Women. By ARTHUR H. N. LEWERS, M.D.Lond., M.R.C.P.Lond., Assistant Obstetric Physician to the London Hospital; Examiner in Midwifery and Diseases of Women to the Society of Apothecaries of London, &c. With Illustrations. London: H. K. Lewis. 1888.

THIS volume is one of Lewis's Practical Series, and, on the whole, we can cordially commend it as a safe practical guide on the subject of Diseases of Women, and well suited to the needs of the student.

To our idea its value would, in many instances, have been enhanced if the author had referred to views which are held

other than those he has adopted, and methods of treatment other than those advocated by himself. For example, in his description of *Secondary Operations for Rupture of the Perineum*, no mention is made of Lawson Tait's operation, which, in our opinion, is a far preferable one to those he describes, and one which gives the best possible results. So, too, in his instructions as to the use of pessaries for retroversion and retroflexion, the position which he advocates as the one in which the pessary should be introduced and worn is not the one most commonly taught and practised, and yet there is not a word to imply that any difference exists in opinion and practice on the subject. We notice as particularly good the chapters on the mode of investigating cases, on diseases of the Fallopian tubes, and on ovariectomy. The book is fully and well illustrated, the type is clear, and there is a good index, but the stitching of the volume is wretched.

On Some of the Varieties of Peripheral Paralysis. By DAVID DRUMMOND, M.D., Physician and Pathologist to the Royal Infirmary, Newcastle-upon-Tyne. Newcastle-upon-Tyne: J. M. Carr. 1888.

DR. DRUMMOND'S work deals with a department of neurological science, which has been gradually, during the past seven or eight years, claiming a greater and greater share of the physician's attention. Since the publication of *Buzzard's Harveian Lectures* in 1885, no work has appeared in this country dealing with this important class of nervous diseases, if we except the excellent description of peripheral lesions given in Dr. Gower's last published volume of *Diseases of the Nervous System*.

The subject is one of great interest and importance, and the author is to be congratulated upon the clear and interesting way in which he deals with it. "Alcoholic Paralysis," "Progressive Multiple Neuritis," "Lead Neuritis," and "Brachial Neuritis," are taken up and discussed, illustrative cases being quoted in each instance, while the pathology of the lesions is dealt with, though somewhat more briefly than could have been desired. An excellent and typical illustration shows a case of alcoholic paralysis. There is also a plate representing the pathological lesions found in some of the nerves, which illustrate the author's personal observations.

The volume is one which we would strongly recommend to all physicians.

La Mort par la Décapitation. Par le Dr. PAUL LOYE. Paris: Bureaux de Progrés Médical. 1888.

THIS very interesting work answers a question which has raised some discussion in France, Does decapitation cause instantaneous death? The author made a series of experiments on dogs, and came to the conclusion that death in them was due to asphyxia, and found that both body and head executed various movements for some time after the operation. To obtain instantaneous death by inhibition, the section had to be performed through the occipital bone, so as to sever the vital centre (*nœud vital*). In man, on the contrary, death was always instantaneous, and was produced by inhibition. At several executions he examined the head immediately after it had been severed from the trunk by the guillotine, and found not the least trace of intelligence. The sudden diminution of blood pressure in the brain would be sufficient of itself to abolish intellectual activity, and the violent irritation of the medulla suppresses all conscious life. The destruction of the eye may be held to be quite instantaneous in death by the guillotine. The author is of opinion that death from electricity, as recently introduced for executions in the United States, cannot be more sudden, and that decapitation has the advantages of being more certain and of reducing the blood pressure as an additional safeguard to the abolition of intelligence. He also maintains that the criminal has not time to feel the pain of the guillotine blade. He states there is no historical evidence whatever for the legends of Charlotte Corday and others, who are said to have shown signs of intelligence after decapitation.

Chimie, Botanique, Zoologie. Notes servants à la préparation de l'examen du quatrième doctorat, recueillies et publiées. Par L. N. WORTHINGTON, M.D., Paris and Cincinnati, M.A., &c. Paris, 1889.

Thérapeutique, Ligature des Artères, Trachéotomie, &c. By the same Author.

In a modest preface the author states that these two volumes consist of notes compiled for his own use, and that he has got and still gets much help from them. It is somewhat difficult to understand how any one else could get help from them. The second volume opens with a list of 64 "errata;" the first with a list of no less than 135, which by no means exhausts

the mistakes. The French genders are a peculiar difficulty to Dr. Worthington, and he seems to have been equally puzzled with his subject. We find frequent blanks where names, reactions, and so on are omitted, and only a few of these have been inserted among the errata. We are told that the moment to operate during chloroform anæsthesia is when the pupil is dilated and the temperature has fallen.

Aids to Obstetrics. By SAMUEL NALL, B.A., M.B., &c. Third Edition. London: Baillière, Tindall, & Cox.

THIS is a new issue of Mr. Nall's little book belonging to the "Student's Aids Series." It "has been carefully revised, and several additions and corrections made, so as to bring it up to date"—to *what* date does not appear, however, from either title page or preface. We can strongly recommend it as, in every way, being what it professes to be, a concise compendium of the leading facts of obstetrics, an aid to memory, and a means of economising the time of the student in preparing for examinations. In a few instances the author is too dogmatic, as, for example, in his remarks on the treatment of puerperal eclampsia, where the induction of premature labour is barely mentioned, and that only to be unqualifiedly condemned.

MEETINGS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

SESSION 1888-89.

MEETING XIV.—15TH FEBRUARY, 1889.

DR. HUGH THOMSON *in the Chair*.

CARDIAC VALVULAR LESIONS.

By DR. G. S. MIDDLETON.

Dr. Middleton read a paper on "Cardiac Valvular Lesions, being an Analysis of a Series of Cases seen at the Royal Infirmary Dispensary." Having referred to the frequency of the disease, and its occurrence in the two sexes, he showed that, up to the age of forty, in his cases, it had been much

more frequent in females than in males; while, after that age, it was more frequent in males than in females. This was probably due to the fact that females suffered more from rheumatism, and that males presented more cases due to strains. This was confirmed by his notes, showing more cases of females than of males in which the disease was traced to rheumatism, and by the great preponderance of aortic lesions in males. In 64 per cent of his cases a rheumatic history could be traced. He dwelt in some detail on the incidence of disease on the various valves, and having passed in review some of the indications of cardiac disease, he devoted his attention to the prognosis. This he regarded in a comparatively hopeful light, bringing forward a large number of cases in which the disease had lasted for many years. This was particularly the case with mitral stenosis. Among his cases there were over 20 women who had borne children since the development of the cardiac lesion, and from the notes of some of these cases which he read, he inferred that the views entertained by the late Dr. Angus Macdonald on the connection between pregnancy and valvular disease were much too grave, and were especially wrong in regard to mitral stenosis.

Dr. Campbell Black said he was a little disappointed, as Dr. Middleton had taken no notice of the disappearance of cardiac bruits. He had a case under his care 10 or 12 years ago. This patient was seen by others, and had been constantly under his care since. He had at that time aortic disease involving regurgitation, but now no vestige of bruit existed. It was an interesting case in relation to the paper published by Dr. Boyd, of Dublin, in *British Medical Journal*.

Dr. Gairdner said he had never heard anything about this paper till now. It had come before him with perfect freshness. He thought every one would admit that a series of observations gathered in this way had got a very great value. He was amazed at the detail with which Sir Andrew Clark in his paper on this subject mustered his facts. He was bound to confess that there were very few of us who, out of our private case books, could pick up such a number of cases, and marshal them in so orderly a way. It was very creditable to Dr. Middleton that he had been able to do it with the numerous worries in the out-practice of a dispensary. He had very great confidence in the work of Dr. Middleton, and could rely upon his observations being accurate. He would admit that the difficulties in the way of getting accurate observations were very great, but we could rely that Dr. Middleton had put aside everything of an equivocal nature. Under these cir-

cumstances, there were many observations that might be made. He was bound to say that though the number of cases was large, one would wish it to be still larger. There was only a small number for the statements made; the numerical basis was rather small. There might be a kind of natural selection as regards the number of men and women applying, but making every allowance for that, it was surely a very striking fact that in aortic cases, at the ages of what may be called the greatest activity, there were 24 in males against 6 in females, and in pure mitral cases no such disparity appeared; that indicated that aortic disease was due to strain. As to the rheumatic association of these cases, Dr. Middleton made out, in accordance with general belief, a large domination of rheumatism over heart disease. He had made it out stronger than many others. The most interesting part to him was that in which Dr. Middleton observed upon the long survival of life in cases of mitral disease, and particularly of mitral stenosis. He (Dr. Gairdner) had long held the opinion that mitral stenosis is treated with great exaggeration as regards prognosis, and he had been in the habit of putting it in this way, that mitral stenosis has the best prognosis, but it is still a very risky condition. The patient is exposed to very numerous dangers, but from a very early period of his own observations he had arrived at the conclusion that people with mitral stenosis alone without regurgitation had a power of standing the disease even under unfavourable conditions. The case of the woman (Case I) was certainly a very striking one. Here was a woman who 20 years ago suffered from mitral stenosis, and who since that had borne seven or eight children, and was now, in fact, in pretty much the same condition as before. He doubted very much if that would have been the case if she had had aortic disease or mitral regurgitation. He had had a number of cases under his charge at various times which tended in the direction of this case, but he did not know if he had one equally strong. He had a case, the heart from which he showed two or three years ago at one of the Societies. It was a woman he was called to see who was not a Glasgow resident. She was very ill. He could not hear any murmur. There was very great uneasiness, considerable angina pectoris, and all the symptoms of a most dangerous case; and, in fact, she died in a very short time. He suspected there might be mitral stenosis, but he was not at all sure. There was great difficulty in getting a *post-mortem*. He happened to know the doctor that had attended her, and he had some communications with him afterwards about her case. There

was no doubt of the fact that this woman's trouble was not diagnosed, and it was equally true it must have existed for a considerable time. The mitral orifice would not allow the little finger to pass. No vegetations, no history. It might have been congenital as far as *post-mortem* appearances were concerned. She had always complained, though the doctor had attempted to persuade her that she had no cardiac disease at all. She was married, had many children, had undergone a great deal of distress and fear in connection with her husband's insanity, had brought up her family so far, and it was only in this advanced stage that she died. He had repeatedly seen women who had had one or two children, and who were the subjects of mitral stenosis. With his views on this subject he had been able to give them a good deal of comfort after they had been frightened by others. When Dr. Macdonald's book appeared he was staggered at his extremely unfavourable view, and it threw him upon his beam ends. Some way or other he thought there was a bias in his book in a too unfavourable direction. The risks were there, however, and were very great. Another case he would refer to, of mitral stenosis. It was a woman after her first or second pregnancy. He thought there was good hope. This woman bore several other children, and in the end she died rapidly and suddenly from a thrombus forming behind the mitral valve. Mitral disease always was a very serious matter, but not so serious or deadly as it has been often represented. The same fact about mitral stenosis was shown occasionally by cases of hemiplegia. He had two or three of these cases who had had the disease for an indefinite period. It was absolutely impossible in one case to fix the history of mitral stenosis. She had either two or three pregnancies. The stenosis did not interfere with them seriously: but for the accident of the hemiplegia she might have been all right now. But that accident showed the risk. In reference to what Dr. Campbell Black had said, his case was a very rare one indeed. He (Dr. Gairdner) did not think he had ever seen a case like it. The absolute disappearance under observation of murmurs of aortic disease involving regurgitation must be very rare.

Dr. Samson Gemmell, with reference to the last point to which Dr. Gairdner had referred, said he remembered one case in which murmurs looked upon as aortic disappeared, and the heaving character of the pulse disappeared. They were thrown back upon the notion that it had been entirely pericardial, having a local distribution, and that they were presumably wrong in their diagnosis. That there was a

complete absence of pericardial friction murmurs from these cases of Dr. Middleton's was not to be wondered at. The cases he (Dr. Middleton) saw were chronic, and any pericardial complication present during the earlier periods of the disease would have disappeared. That had been his experience of late years. He had seen much pericarditis of late years in connection with acute rheumatism. Indeed, during last winter, acute rheumatism was present in great abundance in his wards in the Royal Infirmary, and pericarditis was a well marked phenomenon. It struck him that in these, as the pericardial mischief died down and the friction murmur got indefinite and indistinct, there emerged signs of endocardial mischief, chiefly of the mitral valve. The explanation of Dr. Middleton's statistics as to women being most affected in the early period of life, and with mitral disease, was probably to be found in the fact that women are more subject to rheumatism than men. Aortic disease was more common in males, and at a late period of life, because it was due to chronic endocardial mischief, and probably to those habits to which Dr. Middleton had referred.

Dr. M'Vail said it was very satisfactory to find that Dr. Middleton's statistics tallied so well with, and that his results came out almost in close correspondence with, the facts that Dr. Fagge gathered up from different observers, particularly in regard to the aortic valves being affected chiefly in males. That was one of the points which Dr. Fagge brought very clearly out in connection with atheromatous conditions of the aorta. As to the case adduced of 20 years' duration, almost in the same condition—at least, without much aggravation of the symptoms—it was a most striking one in relation to disease of the mitral valve, and yet it was not so very astonishing when one considered the way the blood entered the ventricle. The auricle was not much more than a dilated portion of a vessel, and gave very little help in the filling of the ventricles, so that if there should be anything like a free opening into the ventricle, it was not at all astonishing from a physiological point of view that there should be no great change after a prolonged period of time. Dr. Middleton's paper was a most important contribution to the subject.

The Chairman (Dr. Hugh Thomson) said he would have liked to have heard Dr. Gairdner's remarks more fully on the prognosis of heart disease. It had been always said that heart disease might last for an indefinite time, provided the weakened heart was not strained beyond what it could fairly do, and he thought that in most cases of death from heart

disease—*i. e.*, long continued disease of the valves—it was from the incidence of some cause, such as running, or a fever, or something or other which disturbed the circulation more or less, that brought about the fatal termination.

Dr. Middleton, in reply, said he recognised the fact that the number of cases was too small to admit of very definite generalisations. His statistics ought to be taken in combination with others before very definite conclusions were drawn from them. At the same time it struck him that the facts were mainly in accordance with those now received. In regard to disappearance of cardiac murmurs he could say nothing from his dispensary experience, for the patients generally disappeared, and, of course, so did the murmurs. *Dr. Gemmell* had referred to his remarks on the paucity of cases of pericarditis. He did not mean to say there were no cases in which the pericardium was diseased. No doubt there was adherent pericardium in some.

MEETING XV.—22ND FEBRUARY, 1889.

SURGICAL SECTION.

DR. D. N. KNOX *in the Chair*.

I.—O'DWYER'S INSTRUMENTS FOR INTUBATION OF THE LARYNX.

BY DR. J. WALKER DOWNIE.

Dr. J. Walker Downie exhibited a set of O'Dwyer's instruments for intubation of the larynx, and made the following remarks:—

Dr. O'Dwyer's tubes, with the necessary accessories for intubation of the larynx, were shown at the recent annual meeting of the British Medical Association, by Dr. Waxham, of Chicago. A report of his paper, as read before the section for diseases of children, appeared in the *British Medical Journal* for 29th September last. As I felt sure that the majority of the members of this Society had not the opportunity of seeing the O'Dwyer apparatus when exhibited, I thought that no harm could result from their being brought before the notice of the Society, but rather that good might follow by familiarising practitioners with the instruments, their mode of application, and the benefits to be looked for

from their extended use. The complete set of instruments, as made by Messrs. Traux, of Chicago, and sold by Mr. Hilliard, consists of (1) a gag, (2) an introducer, (3) an extractor, (4) five tubes of varying sizes, each fitted with an obturator, (5) a scale for selecting the appropriate size of tube, (6) a pair of trachea forceps. In Waxham's case, in addition, there is a respirator to be used by the operator, and a rubber sheath to protect the fore finger.

The tubes are made of metal; they vary from $1\frac{1}{2}$ inches to $2\frac{1}{2}$ inches in length, are elliptical in shape, thus exercising less pressure on the vocal cords than if *cylindrical*. The head is large to prevent the tube passing through the glottis into the trachea, as occurred with the earlier forms, and there is a bulge in the middle of the tube which prevents its easy ejection. Dr. Waxham's tubes are identical with the above in shape and size, but each has in addition a metallic epiglottis. This is readily closed as the larynx rises during deglutition, and after the act, it at once opens again through the mechanism of a fine gold wire spring.

Method of Introduction of Tube.—Having selected a tube in size suitable to the age of the patient, a silk thread is passed through the opening near the head, and a loop formed of about 18 inches. The obturator is then screwed upon the introducer and the tube attached. Thus prepared, it lies at hand ready for use.

The child sits on the nurse's knee, and the hands and legs are held by the nurse while the head rests against her left shoulder. When thus firmly held, the gag is introduced between the jaws on the left side, and there held by assistants from behind. The operator then takes up the introducer with tube, as prepared, catches the loop of silk over little finger of left hand, introduces left forefinger into the mouth, and with it hooks up the epiglottis or even touches the arytenoids. The finger is closely followed by the tube or introducer, the latter taking much the same curve as the laryngeal mirror. The end of the tube is guided into the larynx by the tip of the left forefinger, and as it passes over the epiglottis the handle of introducer should be raised, thus bringing the tube into the line of the larynx. When the tube has entered the larynx, it should be detached by pressing the slide on the introducer forwards, the introducer with obturator is withdrawn, and the tube pressed home by the left forefinger. If the tube has entered the larynx there is an interval of violent coughing, then the respiration becomes easy; when this is the case the loop of thread is passed over the ear till after the coughing

has subsided, when the loop may be cut and the thread withdrawn.

If, on the other hand, the tube has been passed into the oesophagus, there is no such disturbance—no coughing, there is no relief to the breathing, and the loop of thread gradually gets shorter as the tube descends towards the stomach. It must be removed by making traction on the thread. As it is pressed down into the larynx the tube may get blocked by false membrane being forced down in front of it. When such occurs it must be removed at once, and, after clearing away the membrane, re-applied.

In removing the tube, having been worn for the requisite time, the patient is placed in same position as for introduction. The extractor, guided by the left index finger, is passed over the epiglottis and into the tube, and when thus, the lever is pressed on; the jaws of the extractor, thus opened, grasp the tube firmly, and thus held it is removed.

Feeding the child while the tube is *in situ*, the child should lie on the knee, with the head thrown well back; or better, and especially when tube with the metallic epiglottis has been used, the child should lie in the prone position, with head dependent. Small quantities only of fluid should be given, and these should be swallowed quickly.

Dr Downie then read a few extracts from Dr. Waxham's book on *Intubation of the Larynx*, bearing on the comparative value of intubation and tracheotomy in the treatment of pseudo-membranous laryngitis.

II.—THE ETIOLOGY OF STRABISMUS.

By DR. FREELAND FERGUS. (See page 247.)

Dr. Renton said the paper was such an elaborate one that he would require to have a print of the paper, and to have it studied for several days before answering it. He did not hear the beginning of the paper, but he would have liked to have heard Dr. Fergus' opinion as to when, in cases of convergent squint, he would recommend spectacles to be used. The argument against the use of spectacles in children is the frequency of their breakage, but with careful people, he thought they ought to be accustomed to wear them earlier than we used to apply them. By the ophthalmoscope and the flash test one is able to fix spectacles very accurately, and he has found it of very great advantage to make them wear spectacles from a comparatively early age, and he quite agreed with Dr. Fergus that a very careful examination regarding the

refractions was necessary previous to any operation, and he thought it much more scientific to find out the value of the operation, than to have any specific rule of thumb.

Dr. Wolfe said he quite agreed with the remark made by the last speaker, that it was a very interesting paper. The views of Schweigger on this subject are generally now followed in Germany. Donders' views held the field for a considerable time, and they are still the foundation of what we know about strabismus. But, considering the complicated nature of the different muscles and the different structures which produce strabismus, it is very difficult to say in some cases what is the cause of strabismus, and he did not think that, in spite of all that had been written for the last ten or twenty years, that we had advanced one step towards the elucidation of the subject. Everybody writes upon strabismus—there is hardly a meeting of the Ophthalmic Congress or British Medical Association without a paper on this subject, so that there is constant discussion, but no advance.

Dr. Maitland Ramsay said that a very careful examination should be made in all cases, as no rule can be laid down applicable to all cases.

Dr. Freeland Fergus replied.

III.—OPERATION FOR TOTAL STAPHYLOMA OF EYEBALL.

BY DR. J. R. WOLFE.

Dr. Wolfe then read a paper on Total Staphyloma of the Eyeball, a full account of which is contained in the *Lancet* of 23rd March, 1889, and the following is an abstract:—

Dr. Wolfe carefully distinguished between a staphyloma of the periphery of the cornea and limbus and one situated at the anterior pole of the eye, and where the distention has taken place at the expense of the cornea alone.

In the former case surgical interference is liable to set up sympathetic ophthalmia, the implication of the ciliary nerves being the primary, if not the only, cause of this serious complication. If the eye be troublesome, or if it disfigure the face, enucleation is the only safe remedy. Hence *Dr. Wolfe*, when asked to make some remarks on a paper which had been read on an operation for staphyloma of the periphery of the cornea, said the only remark he could make was that he hoped the author would not repeat the operation.

In anterior staphyloma, on the contrary, the deformity can be corrected and the pain relieved without sacrificing the eyeball, as in the following case:—The patient was a miner

who, 13 months ago, received a blow with a stone on the right eye. Three days later the sight was gone and the pain was excessive. For 7 months he spent sleepless nights. Upon admission into the Ophthalmic Institution, on 14th October, 1888, the eyeball was distended at the expense of the cornea, which was opaque, soft looking, and denuded of its anterior elastic layers. The distention was as big as a large bean, and pear-shaped, the point looking forwards. The ciliary region was also distended and out of shape, and the globe was visible when the eyelids were closed.

On 1st November, when under an anæsthetic, an oval shaped flap was removed from the centre of the cornea (Fig. 1). The lens now presented itself and was removed, its removal being followed by a small escape of vitreous. The edges of the wound were brought together by a fine needle and silk thread, and adhesive court plaster and a bandage applied to the

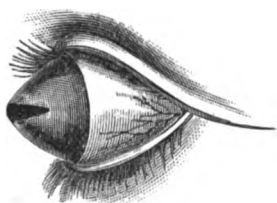


FIG. 1.

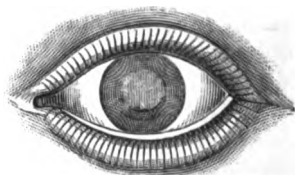


FIG. 2.

Fig. 1, showing the size of the staphyloma: the black shows half of the corneal flap removed. Fig. 2, appearance of eyeball 4 months after operation.

eyelid. On the third day after, the ligatures were removed, and on the eighth day the patient was dismissed with the eyeball of natural size and shape. Four months later there had been no pain (Fig. 2). With a little tinting, it might have almost the same appearance as the other eye.

Dr. Renton had pleasure in proposing a hearty vote of thanks to *Dr. Wolfe* for his paper. He would not recommend an operation in the ciliary region for staphyloma, and his case referred to by *Dr. Wolfe* was a patient who was suffering from a staphyloma in that region, and where ten years ago he removed it, but the wound became puckered, involving the ciliary nerves in the cicatrix, and as one often finds, it led to sympathetic ophthalmia, for which enucleation was performed. That case impressed him with the very great danger of doing an operation of that particular kind, and he (*Dr. R.*) brought it before the Society as a warning. With reference to this operation of *Dr. Wolfe's*, he thought it had answered the purpose

remarkably well, but in diminishing a staphyloma of the cornea, he had been in the habit of removing a simple wedge, using no stitches at all. It heals perfectly well without stitches, but the result in this case is good, and, as Dr. Wolfe has said, by tatooing the cornea, the man's appearance would be made very presentable indeed.

Dr. Fergus described the way in which he operates for staphyloma. He runs a needle right through the staphyloma, and with it holds the cornea firmly up, and then with a knife excises a wedge. Only a needle and knife are used. He does not require to put down the knife and take up forceps. He sometimes found that the ordinary needle slipped out, and he has lately got constructed for himself a needle, almost shaped like a fishing hook, with a barb on it.

Dr. Knox said the Society was deeply indebted to Dr. Wolfe for his paper and the patient. The operation seemed to have been highly successful.

IV.—DR. J. CRAWFORD RENTON exhibited two cases of TALIPES EQUINO-VARUS, and read notes of the cases.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

SESSION 1888-89.

EXTRA MEETING III.—25TH FEBRUARY, 1889.

The President, PROFESSOR GAIRDNER, in the Chair.

RARE AND INTERESTING CASES OF SKIN DISEASE.

I.—CASES SHOWN BY PROF. M'CALL ANDERSON.

Professor M'Call Anderson showed a case of TINEA FAVOSA, which had been undergoing treatment for eight weeks, as a test of the reputed efficacy of the method of Ihle. The patient, aged 19, had suffered from the disease, more or less, for 11 years. It had occasionally improved, but traces of the typical crusts had never entirely disappeared. On admission to the cutaneous wards of the Western Infirmary, upon the 17th of December, 1888, the scalp was thickly covered with the characteristic sulphur yellow honeycomb crusts. The arid, stunted hairs appeared through the crusts, which had a very distinct odour of mice. Upon microscopical examina-

tion of the hairs and crusts, crowds of mycelia and spores were visible. The method of treatment, which was commenced upon 5th January, 1889, was as follows:—All crusts were removed by the aid of poultices, and after the scalp was comparatively clean it was washed with potash soap, and Ihle's paste was thickly spread on, and the head covered with a linen cap. The paste is composed of—resorcim, 1 dr.; lanoline, vaseline, zinci oxid., pulv. amyli, āā 3 drs. Once a day the cap was removed and the head carefully washed, after which the paste was re-applied. On the day previous to his being shown to the Society some of the hairs were removed from the scalp of the patient, and were shown to contain many spores and mycelia. The specimens were shown to the Society. The treatment had been carried on without interruption for eight weeks.

Prof. Anderson next showed a case of *ICHTHYOSIS* in a little boy 2½ years old. The patient's mother relates that 10 months ago she noticed that the child's skin could not be kept clean, although frequently washed. Soon dirty, dry scales began to peel off, but not very readily. He never seemed to suffer from any itch or pain in the skin, which was always very dry. His general health was good. There was no history of a similar complaint in any other member of the family, or in any of the relatives.

The next example of skin affections was one of *RECURRENT HERPES OF THE FACE*, also brought forward by Prof. McCall Anderson. The patient, a domestic servant, aged 26, had suffered from attacks of the same nature for at least 20 years. As a rule, there were two or three attacks every year without known cause. They lasted 8 or 10 days, and they showed no predilection for any special season of the year. Both sides of the face usually suffer, and the present attack, from which she was just recovering, had implicated the middle and lower branches of the right fifth nerve, and to a very slight extent the supraorbital branch as well, while only the middle branch suffered upon the left side.

Prof. Anderson's fourth case was one of the disease which he described some years ago, under the name of *SCROFULODERMA VERRUCOSUM*. The patient, a girl of 18 years, presented very typical patches of the eruption upon the right thumb, which had been present for 8 years; upon the left buttock for a similar length of time; on the right forearm in front for 5 years; for the last year upon the right upper arm and upon the right hip for 6 months. The patches presented the characteristic warty surface; they were painless, but slightly

itchy; around them the skin was livid, and, upon removing the crusts, the enlarged papillæ were brought prominently into view. Here and there, cicatrices of old patches could be seen, the result of former disease.

Microscopical specimens of TRICHOREXIS NODOSA were also shown by Prof. Anderson. There was a series of seven specimens, each from a different member of *one* family. Three generations were represented, and there was a history of previous generations having presented the same abnormal disease of the hairs.

Prof. Anderson also showed a microscopical specimen of TRICHONOSIS VERSICOLOR, as well as three photographs, one for a diagnosis, one of scleroderma, and the third of spurious cheloid after an extensive burn.

II.—CASES SHOWN BY DR. ALEX. NAPIER.

Dr. A. Napier showed a patient (H. R., a young woman of 23), suffering from ALOPECIA AREATA, of 16 years' standing. For 4 years there was not a single hair on head, or face, or body; the eyelashes and eyebrows had been absent for 10 years. Under various forms of treatment the hair had grown in scattered tufts, but these, after attaining a certain length, invariably fell out, leaving the patches as bald as ever. When she presented herself at Anderson's College Dispensary in September, 1883, the head was almost entirely bald, and the eyebrows and lashes were still awanting. The treatment consisted of tonics (chiefly iron and strychnine) internally, while locally a stimulating lotion, consisting of equal parts of carbolic acid, rectified spirit, glycerine and water, was rubbed in twice daily. Within the last few months nitrate of pilocarpine ($\frac{1}{4}$ grain in pill at bedtime) has been given, with good effect. The hair is now growing fairly well over nearly the whole head; it is glossy, strong, and deeply pigmented, and remains in when it does grow. The eyebrows and eyelashes have reappeared.

The points of interest were the treatment, just described; the duration, from which a good deal of encouragement in the treatment of obstinate cases might be derived; and its association with undoubted ringworm. About eighteen months before this patient was first seen, her brother had been under treatment, suffering from a large patch of tinea circinata on the dorsum of one foot, with two patches of alopecia areata on the head. The stimulating (or parasiticide) lotion above mentioned sufficed for the removal of both affections. Dr.

Napier mentioned also several other series of cases in which ringworm had alternated or appeared simultaneously with alopecia areata, and expressed strongly the opinion that these were not merely coincidences, but that there was a form of ringworm of the head, usually chronic in course, and practically indistinguishable clinically from alopecia areata.

Dr. Napier described also a case of ACUTE LOCALISED ŒDEMA. The patient was not presented, as his eruption had in the meantime disappeared; he was a strong, healthy-looking young man of 24, whose illness had begun a year ago. In his early years he had masturbated frequently, but had suffered nothing apparently from the practice. About a year ago, he fell in with some quack literature of the ordinary kind, the study of which completely upset him mentally; he became "nervous," unable to keep his attention fixed on anything for any length of time, restless, and hypochondriac, and had to give up work for a considerable period. About three months ago, the swellings he complains of were first noticed. They are generally preceded by a sensation of irritation and heat, sometimes by no abnormal sensation at all; in an hour or two the part swells, forming elevations 2 to 4 inches long, and about a couple of inches broad, tense, shining, hot, and tingling, and not pitting on pressure. In 6 or 8 hours the swelling disappears, leaving no trace behind it. The affection has appeared in nearly every part of the body, chiefly on face, limbs, and chest; several times it has occurred in the penis, tongue, and throat. Dr. Napier compared this case with a series of cases in which rapid swelling of face and hands had followed exposure to cold on emerging from a very warm atmosphere, the patients having been moulders and hammermen.

Dr. Napier also showed diagrams of an EXTENSIVE WARTY ERUPTION, confined to the left side of neck and chest and left arm; several specimens of hairs affected with TRICHOREXIS NODOSA; and two plates from a Japanese journal of medicine, the *Sei-I-kwai*, illustrating a very unusual case of FIBROMA MOLLUSCUM.

III.—MR. HENRY RUTHERFURD presented microscopical sections of two SOFT WARTS or CONGENITAL MOLES; and also of an unusual form of cutaneous affection, removed by Professor George Buchanan, from the dorsum of the foot of a male patient.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

SESSION 1888-89.**MEETING IV.—23RD JANUARY, 1889.**

I.—CASE OF DOUBLE MONSTER.

DR. ALEXANDER SCOTT of Tollcross, described a double monster which he had recently delivered. Dissection was not permitted, but so far as could be made out the foetuses, which were both males, were united only by skin along the whole length of both sterna. The case was of interest obstetrically. The first was born by the head, the second by the feet, the legs being twisted over the other's breech and back.

II.—NOTES ON SOME CONGENITAL DEFORMITIES.**By DR. KNOX.**

This paper related chiefly to deformities connected with the central nervous system—*spina bifida*, *encephalocele*, *anencephalus*, and going to the other pole of the body—*extroversion* of the bladder. He first referred to the common use of such terms as “arrest of development” in speaking of congenital deformities, and stated that such terms could only be used as signifying the results of disease. Congenital deformities were not mere vagaries of the developmental process, and it was no longer possible for anatomists to classify monsters simply as they would zoological specimens. It was no doubt sometimes difficult to say how much was the direct result of a distinct disease, and how much was merely indirect, or the result of interference with ordinary physiological processes; but at all events, in the study of the gross lesions he was about to bring under the notice of the Society, there could be no doubt as to the pathological nature of the process. He would prove to them that there had been very extensive destruction of tissue in some of the deformities, and that at a very early period of intra-uterine life. He would also show reasons for believing the destroying agent to be of an inflammatory nature.

The anatomical peculiarities of the forms of *spina bifida*, *rachischisis*, *encephalocele*, and *anencephalous*, were then gone over, and a dissected specimen of an *anencephalus* foetus shown to the meeting. In this specimen the optic nerve on one side was dissected out, and the origins of some others of

the cranial and cervical spinal nerves were shown. The specimen showed entire absence of the upper half of the spinal cord, the lower half being normal and well developed. The relation of the spinal nerves to the modified integumentary covering of the open spinal canal was also shown, and their relations to the serous sacs of the arachnoid described. The base of the skull was covered by a felted structure containing blood, and beneath this a thin layer of a cellular structure resembling nerve tissue. There was no neck in the specimen, the heart and lungs being close up to the lower jaw, but a vertical section had been made through the bodies of the cervical vertebræ, and these were seen to be somewhat compressed vertically and extended laterally, but there was no kyphosis, as is described by Professor Cleland in some of his specimens, there was rather lordosis. Professor Cleland's views, as contained in his paper in the *Journal of Anatomy*, vol. xvii, were described, and the lecturer expressed regret that he had not seen the Professor's recently published work till the day of the meeting, as the papers of Professor Cleland and Dr. Yule Mackay seemed the ablest and most scientific descriptions of these deformities he had seen. A short description of the development of the parts concerned in extroversion of the bladder was then given, and reasons advanced to show that the deficiency in the bladder, urethra, and abdominal wall were likewise due to inflammatory action in early intra-uterine life.

ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

PHYSIOLOGY.

By WILLIAM SNODGRASS, M.A., M.B.

MEDICAL practitioners who desire, in the intervals of work, to keep an eye on the researches which are being carried out, and the subjects which are being discussed by physiologists at the present time, cannot do better than consult the *Centralblatt für Physiologie*, which is published fortnightly under the auspices of the Physiological Society of Berlin, and edited conjointly by Professor Exner of Vienna and Professor Gad of the Physiological Institute in Berlin.

Each number of the journal usually contains about thirty or forty pages, and while long articles are not excluded, it aims rather at giving either short original communications or brief abstracts of papers on physiological topics appearing on the Continent, in England or America. These are arranged under several heads, as general physiology—physiology of muscle, of respira-

tion, of the blood, of glands, &c., &c.; while from time to time a list is published of all papers appearing in a given time on physiological subjects. Thus, for example, in No. 22, 2nd February, 1889, there is a list of papers appearing in 1888, and to give an idea of the number of these, it may be mentioned that the list extends to thirty pages, each of which contains on an average about twenty-five names. As the papers are arranged according to subject matter, the *Centralblatt* affords a most convenient means of reference to those engaged in original investigation. The annual subscription for the journal is twenty-five marks.

A few extracts have been made from the January and February numbers, which may prove interesting to medical men, and give an idea of the nature of their contents. Thus, with regard to the mechanism of the excretion of urine, it may be remembered that some time ago Arthaud and Butte announced that on section of the vagus of the dog and stimulation of the peripheral end, the excretion of urine is either lessened or altogether stopped. J. B. Masius has performed similar experiments on rabbits. After section of the vagus and sympathetic in the neck of rabbits slightly under the influence of chloroform, he stimulated, by a strong induced current, the descending sympathetic, and noticed no alteration in the rate of the dropping away of the urine through cannulæ, which had been tied into the two ureters. Faradisation of the peripheral end of the vagus, on the other hand, strongly diminished the excretion of the urine in both kidneys, while the rapidity of the flow of the blood in the kidneys was also diminished. He finds that if the rabbits are under the influence of chloral, stimulation of the vagus is not followed by either of these phenomena. When the proximal end of the sympathetic is stimulated the urinary flow is much lessened or stopped, even after section of the spinal cord below the roots of the sixth dorsal nerves. But as destruction of the cord above this point stops the influence of the sympathetic, Masius holds that it acts in a reflex way, and through the medium of the splanchnics.

From experiments as to the influence of massage on the excretion of urine in dogs, A. Bum has found that massage of the posterior extremities always increases the amount of urine excreted. For various reasons he holds that this does not arise from increase of blood pressure, but he rather believes that the urine-forming material contained in the muscles is pressed out by the massage, and brought into the circulation. Thus he found that ligature of the arteries and veins of the leg, or of the veins alone, set aside the influence of the massage, while closure of the arteries alone did not do so. Similarly massage of muscles, wearied out by having been tetanised, was more effective than that of muscles at rest. That the action of massage was not due to nervous influence was seen by section of the splanchnics—only those of one side being cut to avoid too great a fall of blood pressure—and observation of the kidney of the corresponding side.

G. Lemoine finds that tincture of *strophanthus* has a strong diuretic action. Five to six drops, he says, suffice to double the amount of urine excreted by a healthy man in from 8 to 10 hours. In most cases of heart disease, the same energetic diuretic action can be evoked. After the use of *strophanthus* medicinally, the increase in the amount of urine excreted may be seen for as long as 15 days.

J. Munk and H. Senator have been experimenting upon the influence of alterations of blood pressure on the excretion of urine by the living kidney removed from the dog, and supplied with defibrinated blood. They find that if the arterial pressure be increased by from $\frac{1}{2}$ to $\frac{1}{3}$ of its original amount, the quantity of urine excreted will be from 4 to 23 times as great, so as to restore the former blood pressure. But Munk maintains that it is not so much the increased blood pressure as the velocity of the current which affects the amount excreted. The albumin, always present in these cases, sinks with increase of arterial pressure, while the percentage of NaCl is slightly, and the amount of urea is notably, increased. If the venous flow is impeded, the quantity of urine is much diminished, as is also that of urea. There is scarcely any change in the amount of NaCl, and the amount of

albumin is largely increased. For these and other reasons, they hold that most of the water of urine and part of the salts are separated by transudation through the glomeruli, while the specific ingredients of urine, together with the rest of the water and salts, are excreted by the activity of the epithelium, especially in the convoluted tubules. The amount of transudation depends mostly on the velocity of the blood current, while the power of secretion of the epithelial cells is influenced rather by the amount of water in the blood and the amount of urine-forming or diuretic material.

E. Pflüger and L. Bleibtreu give a means of estimating the amount of urea in urine by boiling it with a sufficient quantity of NaHO , when all the N of the urea may be obtained as ammonia. After precipitation with phosphotungstic acid, the urine gives no more N than corresponds to the amount of urea present.

An investigation by P. Albertoni (Bologna) on the absorption of various kinds of sugar, shows that we must regard the sugars not merely as nutritive materials, but also as agents which increase blood pressure and the pulse rate. Injections of solutions of glucose or maltose into the blood causes distention of the renal vessels with marked polyuria and glycosuria.

Experiments by Snyders on water filters have shown that the "watch" filter, constructed by Maignen, is very effective. It is easily sterilised, retains at first all germs, filters quickly, and purifies the water chemically. Thus fixed substances are diminished to about one-third, organic substances are almost completely removed, lime and magnesia are diminished to one-fourth, ammonia and nitrous acid are notably diminished, and lead and iron are wholly retained.

As bearing on the treatment of Sciatica, it may be noted that, according to A. Pitres and A. Vaillard, the injection of $\frac{1}{2}$ ccm. of pure ethyl-, or methyl-alcohol, into the region of the sciatic nerve, induces paralysis and anæsthesia in all parts beyond to which the nerve is distributed, owing to destruction of the nerve fibres. Using diluted alcohols, this injurious action upon the nerve fibres is much diminished. Thus, injection of a 15 per cent solution of alcohol will cause neither functional nor anatomical destruction of the nerve fibres. In this case the only change seen is an increase in the size of the nerve corpuscles. If, however, the nerve is kept moist for about five minutes, even a 10 per cent solution of alcohol suffices to remove the excitability of the nerve.

SURGERY.

By A. E. MAYLARD, B.S. (Lond.)

Examination of the Throat and Nose of 2,000 Children to Determine the Frequency of Certain Abnormal Conditions.
By W. F. Chappell, B.D. (*The International Journal of the Medical Sciences*, February, 1889.)—In the entire number the following abnormal conditions were found:—

Adenoid Growths, ...	60
Enlarged Tonsils, ...	270
Deviated Septa, ...	330
Spurs in Septa, ...	150
Hypertrophy of Inferior Turbinate Bones, ...	260
" " Middle " "	161

This shows that 1,231 were suffering from some anatomical abnormality, and usually with its accompanying symptoms of respiratory obstruction and catarrh.

A further examination of these statistics showed that enlarged tonsils and adenoid growths could be classed as belonging to very early life. The other abnormal conditions belonged to ages usually about 6 years, increasing rapidly with each succeeding year until puberty. All social classes are liable to

them in about equal proportions and at the same age. Males suffer more frequently than females, probably owing to greater exposure to the causes which produce catarrhal congestion and inflammation. In glandular organs it is but a step from congestion to hyperplasia, and an increased afflux of blood being once established, a slight irritation will serve to keep it up, and hypertrophy is the necessary result.

Paralysis from the Use of Esmarch's Tourniquet.—Dr. J. J. Putnam (*Boston Med. and Surg. Jour.*, 2nd August, 1888) publishes a case of paralysis of all the muscles of the forearm, with partial sensory paralysis of the hand, produced by the application of Esmarch's tourniquet at about the middle of the upper arm, and mentions another case which occurred in the practice of a friend. Under electrical treatment cure was rapid.

Hugo Köbner (*Deutsche Med. Wochenschr.*, 1888, No. 18) describes a similar case, where sensibility was wholly destroyed in the forearm and hand as well as the muscular power. Cure also rapid.

Wölfler (*Centralbl. f. Chir.*, 11th August, 1888) has also had two cases.—D. M'P.

Formation of Small Cancerous Nodules by Inoculation from Dog to Dog. By Wehr (Lemberg).—At the seventeenth German Congress of Surgeons held in Berlin in April, 1888, Wehr gave the results of some cancer inoculation experiments. He inserted under the skin of dogs small fragments of encephaloid carcinoma obtained from the vagina of a bitch affected with the disease. In size the portions inserted were not larger than the head of a pin. All the wounds of inoculation or rather of transplantation healed by primary intension. For eight days it was impossible to feel anything, but subsequently they increased to the size of a filbert. On microscopical examination of the nodule removed, it was found to have entirely the structure of medullary carcinoma like the fragment transplanted. In one case, where the transplantation was made under the skin of the abdomen, the nodules grew to the size of plums, and, indeed, of eggs, and the inguinal glands became enlarged. This animal was shown before the Medical Society of Lemberg (*Revue de Chirurgie*, October, 1888.)

The Process of Bone-Repair.—Speaking in a discussion at the Philadelphia County Medical Society (*Boston Med. and Surg. Jour.*, 16th August, 1888) introduced by Dr. John S. Miller, who showed cases in support of Dr. W. Macewen's views that new bone is not produced by periosteum, the chairman of the meeting, Dr. C. B. Nancrede, said—"The first question to be answered in a discussion of this kind is: What constitutes the periosteum? If we mean a fibrous membrane, the inner layer of which consists principally of yellow, elastic tissue, then we must agree with Macewen's extreme views, and admit that it has nothing to do with bone-repair. But, if we study the normal process of bone development, I, at least, must arrive at a different conclusion. The long bones are laid down in cartilage, a temporary structure. How do they ossify? By means of this very periosteum, which Macewen treats with such contempt, and which Ollier exalted too highly. There is a third layer of periosteum in direct contact with the bone, and this layer is composed entirely of those elements which, wherever we see them, we recognise as the agents of ossification—the osteoblasts. The temporary cartilage is invaded by connective tissue, ingrowths from the periosteum, covered with osteoblasts, and is eaten up by them; and we find it permeated, and finally replaced, by a network of fibrous tissue, covered with osteoblasts. A certain number always remain beneath the periosteum. A certain number, very small, remain in the Haversian canals, a still larger number in the medulla.

"It is clear to me why compact tissue dies: it has so few osteogenetic cells. The medullary tissue lives, because it is comparatively rich in osteogenetic elements. Why does bone die when the periosteum is stripped off? Because

the resulting inflammation is so severe that the inflammatory tissue strangulated the osteoblasts in the Haversian canals. With antiseptic means we now control the inflammation, and the osteoblasts are not killed, and the bone is saved.

"We are very hard, nowadays, on the periosteum. The fibrous layer has nothing to do with bone-repair, but its osteoblastic layer is in direct communication through the lining of the Haversian canal with the medulla; it is practically one structure, and thus, if we look at this matter from the standpoint of a correct histology, we find that both views are correct, provided only that we have a distinct understanding what is meant by the word periosteum in each case."—D. M'P.

Formation of Pus by Chemical Agents. (*Eighteenth Berlin Surgical Congress.*)—In 1882 Orthmann showed that mercury and essence of terebenthine were pyogenic. This was refuted by Straus, Klemperer, and others, who were unable, by inoculating rabbits, to get suppuration.

Rosenbach, Gravit, and De Bary, however, confirmed Orthmann, and pointed out that Straus, in using rabbits, was employing animals particularly unsusceptible to suppuration. Their experiments consisted in taking sterilised tubes, inserting some mercury, and heating to 200° C. for a couple of hours. These were then introduced under the skin of some dogs, and subsequently broken. Mikuliez and Hirschberg confirmed the results of Rosenbach by facts observed in man. Mikuliez has seen pus absolutely free from microbes in the case of a patient into whom he had injected under the skin a 10 per cent solution of nitrate of mercury. Hirschberg has proved the absence of microbes in an eye wounded by a fragment of steel.—(*Revue de Chirurgie*, October, 1888.)

Case of Pulsating Tumour of Bone. By Robert M'Donnell, M.D., F.R.S. (*The Dublin Journ. of Med. Science*, 1st January, 1889).—Mrs. X., 38 years of age, some three years before (in 1882), while attending some meetings in England with her husband, and standing and walking about a good deal, she was suddenly attacked with a severe pain in the right leg, above the outer ankle. This pain was as bad as any toothache she ever felt, and was confined to one spot, on which she could put her finger. She thought a boil or abscess was forming, and remained in bed or in the recumbent posture for some days. In a few days this pain subsided, and since then she has had no acute pain at all. About a year after this she first observed the throbbing or pulsation in the swelling. In February, 1885, the tumour, which appeared to be connected with the fibula, was about the size of an elongated turkey egg, and pulsed as strongly as any popliteal aneurism; the bruit also was very pronounced. Both the author and Mr. Erichsen, who also saw the case, looked upon the tumour as a pulsating periosteal sarcoma. As the patient was pregnant, not suffering pain, and in a state of good general health, the use of a moderately tight elastic stocking, and rest were advised. Some weeks after delivery (in August, 1885), Mrs. X. had an attack of phlegmasia dolens in the good leg, the other limb not being affected. For nearly six months she was confined to bed, during which time the stocking was almost constantly worn. On getting up after this prolonged illness, Mrs. X. found that all pulsation had ceased, and that the tumour was smaller. On 6th November, 1888, she was seen by Dr. M'Donnell, whose report states that she was in excellent health, and that there existed no vestige of tumour, pulsation, or bruit.

Sectio Alta.—König and Helferich (see Proceedings of 17th German Surgical Congress, *Beilage z. Centralbl. f. Chir.*, 1888, No. 24), have been able to gain very free access to the bladder in several cases, where they were performing the suprapubic operation, by removing by the chisel the upper half of the symphysis pubis on one side. This method gives very free access to the deepest parts of the bladder, and the authors think it might facilitate operations upon tumours seated there, and in cases of enlarged prostate, encysted calculi, vesical diverticuli, &c.

W. Koch (*Berlin Klin. Wochenschr.*, 1888, No. 20), suggests making a crucial incision over the symphysis, elevating the periosteum and perichondrium, and removing the bone on both sides by a horizontal division with the chisel, just far enough down not to destroy the continuity of the pelvic girdle, and a vertical division through the horizontal ramus of the pubes on each side. —(*Centralbl. f. Chir.*, 15th Sept., 1888.)

Sectio Alta Subpubica.—With a view to gaining more direct access in the kind of cases noted above, Langenbuch recently suggested that the bladder might be opened by a transverse incision beneath the pubic arch. Several German surgeons have almost simultaneously published descriptions of operations, all thoroughly tested upon the dead body, and some upon living patients, believed by them to be improvements upon Langenbuch's method.

Dr. P. Nicaus (of Bern) has repeatedly performed on the dead, and once successfully on the living, a much more formidable looking operation, described in minute detail, and illustrated by engravings in the *Centralbl. f. Chir.*, 21st July, 1888. A vertical incision through the soft parts begins above the symphysis, and is prolonged downwards by the side of the external genitals to the inner end of the fold of the groin, exposing the periosteum. In the male the spermatic cord is to be avoided, and the testicle withdrawn from the scrotum and turned outwards out of the way. The periosteum, ligaments, &c., are elevated, the symphysis divided, and then both rami of the pubes on the same side divided so as to allow the bone to be folded outwards like a door, giving very free access to the front of the bladder. If more room is wanted a short incision parallel to the brim of the pelvis gives it. This operation allows free digital and ocular examination of the front and neck of the bladder, the prostate, the insertion of the ureter, and in the female the uterus and upper part of the vagina. When the bladder is opened, which it can be by a very extensive incision in the middle line, the whole of its interior, the orifices of the ureters and urethra, and even the prostatic portion of the latter can easily be felt and seen. The operation being completed the bone is fixed in position by buried silver sutures.

One advantage of the method is that very efficient drainage of the deepest part of the bladder can be provided for by the lower end of the wound.

The operation is recommended for dealing with very large calculi, or where there are complications, such as great prostatic enlargement, putrid cystitis, &c., or for cases of vesical tumour, rupture, or perforation of the bladder or urethra, vesico-intestinal fistula, uterine disease, &c.

The original article is very full and exhaustive, and is well worthy of careful perusal.—D. M'P.

GYNÆCOLOGY AND OBSTETRICS.

By E. H. LAWRENCE OLIPHANT, M.D.

Albuminuria in Pregnancy.—During a discussion at the Obstetrical Society of Boston, Dr. William L. Richardson, the President, said "that fourteen years ago, when he supposed that albuminuria meant approaching eclampsia, he had made a series of observations bearing on this subject. The urine of every patient was drawn by catheter before labour, when time permitted, and examined; in the first thousand cases albumen was found in 43 per cent; but in the vast majority of this proportion nothing else was found, and the albumen disappeared soon after labour."—(*Boston Med. and Surg. Jour.*, 30th August, 1888.)—D. M'P.

On the Action of Certain Drugs on the Utero-Ovarian System.—Dr. Lombe Athill contributes an article on this subject to the *Dublin Journal of the Medical Sciences*, December, 1888. With the exception

of drastic purgatives, which do in some cases seem to increase the menstrual flow, Dr. Atthill thinks that none of the drugs usually employed in medicine need be forbidden during the periods. "I have for many years," he says, "been in the habit of directing my patients to continue taking the medicine I have prescribed during menstruation, and from carefully questioning them, am perfectly satisfied that none of the ordinary medicines, taken in moderate doses, produce any effect on the function, and it is to be doubted if the great precautions taken by many women during its continuance are on physiological grounds necessary." He then proceeds to discuss the action of various drugs in cases where menstruation is (a) infrequent or absent, (b) scanty, or (c) unduly profuse. He leaves out of consideration drugs given to remove the cause of suppression, as anæmia, and takes up some of the so-called emmenagogues in detail. He has repeatedly continued the administration of quinine during the menstrual period, and never observed it to produce any pain or discomfort, which it might be expected to do if it induced any contraction of the uterine fibre, nor has it ever among his patients exercised any influence on the amount or duration of the period. His experience of the effects of strychnine is the same. Again, he has given ergot alone or combined with other drugs, as an emmenagogue, and has never known it to have any effect as such. He is therefore satisfied that these three drugs have no effect on the unimpregnated uterus when this is normal in its muscular fibre, or at any rate that they have no effect in the production of menstruation. Savin he considers a dangerous drug. Aloes may by irritation propagated from the intestines increase, but not induce menstruation. Amenorrhœa may exist with perfect health, and should not be treated should no unpleasant symptom coexist. He has prescribed the permanganate of potassium extensively, and always without result.

Hæmorrhage from subinvolution with hypertrophied mucous membrane demands local treatment, and is little benefited by drugs. Menorrhagia from congested ovaries may usually be cut short or prevented by the timely exhibition of the bromides, in half-drachm doses thrice daily for five or six days before the period is due. A brisk saline purgative will assist their action, but it is doubtful if ergot will do so. No drug seems to have any effect on the hæmorrhage from pedunculated polypi. The case of the true uterine fibroid is different, especially if surrounded completely by the muscular tissue of the uterine wall. In uterine hæmorrhage astringents such as tannic or gallic acids are useless. Iron in anæmic women is untrustworthy, but merits a trial. Ergot is the only drug on which he relies, and then only in the form of the American extract known as "Squibb's Ergot." He thinks that ergot will not originate clonic contractions of the uterus in pregnancy. In fact he administers that drug in cases of threatened abortion. No drug can be relied on in checking the hæmorrhage of malignant disease. Tincture of the perchloride of iron in full doses is sometimes useful, but its effect is transitory. Dr. Atthill in this paper makes no mention of the use of alum. We have frequently seen long continued uterine hæmorrhage cease during its administration in 3 or 4 grain doses thrice daily.

On the Danger of Washing Out the Peritoneal Cavity during Abdominal Section. (*Nouvelles Arch. d'Obstet. et de Gynec.*, January, 1899.)—At a meeting of the Paris Obstetrical Society, M. Polaillon communicated a case of ovariectomy, in which there had been a smart hæmorrhage from the tearing of some adhesions before these could be ligatured. To remove the blood the abdominal cavity was washed out with boiled distilled water carbolised to 1 per cent, and at a temperature of 98.5° F. The washing had been going on for two or three minutes, when suddenly the respiration became hurried, then became feeble, and ceased. The face became purple, but the heart continued to beat regularly. Artificial respiration was carried on for three-quarters of an hour, but as natural breathing was not induced, tracheotomy was performed. Regular but feeble respiration now took place, and continued for about fifteen minutes. The face was less livid; the heart beat regularly and rapidly. Consciousness did not recur. The respiration,

however, ceased, and the heart became more feeble. Artificial respiration, electricity, thermo-puncture of the skin, injections of ether, and bleeding from the left arm failed to restore the respiration, or to prevent the final extinction of the heart's action about one hour and three-quarters after the first failure of the respiration. M. Polaillon attributed the death partly to the chloroform, but more particularly to the washing out of the peritoneum. In two previous cases he had seen the respiration cease when the hot water was poured in. In these cases the respiration was fortunately re-established. M. Guérin had noticed that in a case of intestinal obstruction, where he performed abdominal section, the respiration became embarrassed when his hand touched the diaphragm; and this occurred more than once. M. Lucas-Championnière thought the accident due to the chloroform.

Case of Ovarian Tumour with Twisted Pedicle. (*Brit. Gynec. Journ.*, November, 1888.) At the October meeting of the British Gynæcological Society, Dr. R. T. Smith described a case where the patient was admitted to hospital with an ovarian tumour of several months growth. Some days after admission the menstrual flow appeared, associated with some degree of sickness and faintness and diffuse pain, not severe, over the abdomen. Laxatives and a simple enema gave no relief. Next day the temperature was 101·4°, the abdomen was more distended, especially over the ascending colon, and the vomiting and faintness became alarming. Dr. Smith was convinced she was suffering from obstruction, but as the symptoms had somewhat passed off, he postponed operative interference till next day. On opening the peritoneum, which was very vascular, about a quart of ascitic fluid escaped. A huge, deep blue, vascular tumour presented itself, absolutely free from adhesions, except two inches of intestine attached to the upper surface of the pedicle by recent disease. The pedicle was twisted half a turn. The contents of the tumour, which seemed almost pure blood, measured 8½ pints. The solid portion weighed 5½ lbs. The veins of the pedicle were the size of a cedar pencil, and were filled with clot. Another cyst was found tightly wedged in the pelvis; this contained ordinary fluid, and was removed without difficulty. The intestines were greatly distended, and of marked pink colour. The peritoneum was velvety, and ¼ inch thick. The Fallopian tube and lower third of the tumour was absolutely black. The patient died of shock in seven hours. Dr. Smith had already recorded a similar case in which, however, the patient after a critical depression survived. In both cases the twisting occurred at a menstrual period. The symptoms pointed rather to obstruction and a low form of peritonitis than to the twisting, which was not diagnosed. Dr. Bantock thought the patient would have a better chance if she were allowed to rally from the shock. The diagnosis was not difficult from ruptured tubal pregnancy, as in the latter case the tumour would become less distinct, in ovarian would be more tense than before. Dr. Heywood Smith said that in such cases the hæmorrhage was limited, and the pulse might recover itself. Dr. Barnes said that in his experience such cases went from bad to worse, and he thought immediate operation was desirable. In replying, Dr. R. T. Smith drew attention to the fact that the onset of symptoms was gradual, and that there were no definite symptoms to point out the condition, in regard to which he might be said to have had his eyes open, having so recently had a similar case to treat. The patient had had 16 hours' rest.

The Fœtal Blood at Birth.—D. Scherenziss (quoted in *Centbl. f. Gynec.*, 9th February, 1889,) finds fœtal blood of lower specific gravity than that of adults, and especially in its serous part. It contains 76·8 per cent of the hæmoglobin of adults. Its fibrin is as 2 to 7 of the mother's. It is richer in salts, especially insoluble salts. It contains somewhat more sodium and remarkably less potassium than adult blood, the sodium and potassium apart from that in the form of chlorides, is considerably less than in adult blood. He found that sex and size of child did not affect the quantitative analysis.

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- The Pathology, Clinical History, and Diagnosis of Affections of the Mediastinum, by Hobart Omary Hare, B.Sc., M.D. Philadelphia: P. Blakiston, Son, & Co. 1889.
- Oeuvres Complètes de J. M. Charcot. Maladies des Poumons et du Système Vasculaire. Tome V. Paris: Aux Bureaux du Progrès Médical. 1888.
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- Saint Thomas's Hospital Reports. New series, edited by Dr. Gulliver and Mr. Clutton. Vol. XVII. London: J. & A. Churchill. 1889.
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- Papers on the Pure Oral Instruction of the Deaf and Dumb, by Wm. Van Praagh.
- Surgical Operations, Part II. Amputations, Excision of Joints, Operations on Nerves, by Sir Wm. MacCormac. London: Smith, Elder & Co. 1889.
- Elementary Bandaging and Surgical Dressing, by Walter Pye, F.R.C.S. Third edition. London: Trübner & Co. 1889.
- The Medical Annual and Practitioner's Index, 1889. Seventh year. Bristol: John Wright & Co.
- Notes on Physiology, by Henry Ashby, M.D. Lond. Fifth edition, illustrated. London: Longmans, Green & Co. 1889.
- Transactions of the American Surgical Association. Vol. VI. Edited by J. Ewing Mears, M.D. Philadelphia: P. Blakiston, Son & Co. 1888.
- Elements of Histology, by E. Klein, M.D., F.R.S. Illustrated with 194 engravings. New and enlarged edition. London: Cassell & Co. 1889.
- Lectures on Bright's Disease, by Robert Saundby, M.D. With 50 illustrations. Bristol: John Wright & Co. 1889.
- The Student's Text-Book of the Practice of Medicine, by Angel Money, M.D. London: H. K. Lewis. 1889.
- A Text-Book of Pathology, Systematic and Practical, by D. J. Hamilton, M.B., F.R.S.E. Copiously illustrated. Vol. I. London: Macmillan & Co. 1889.

	SCARLET FEVER.
Murchison. <i>Loc. cit.</i>	From earliest stage till the 8th week.
Vacher. <i>Loc. cit.</i>	49 days from eruption.
Squire. <i>Loc. cit.</i>	6 to 8 weeks.
Stephenson. <i>Loc. cit.</i>	7 weeks.
Clement Dukes. <i>Loc. cit.</i>	When all desquamation ceased, and the throat healthy. 5 to 8 weeks.
[If disinfection not reliable.]	[2 months.]
Alder Smith. <i>Loc. cit.</i>	6 to 8 weeks.
Newsholme. <i>Loc. cit.</i>	5 to 8 weeks, when all peeling of skin has been completed. [Not less than 6 weeks.]
Rugby School. Printed sheet: periods when boys may return.	When desquamation has entirely ceased.
Code of Rules for the Prevention of Infectious and Contagious Disease in Schools, passed by "the Medical Officers of Schools Association." 2nd edition. Churchill, London, 1886.	Not less than 6 weeks, if desquamation ceased and no sore throat.
City of Glasgow Fever Hospital (Belvidere). Patients not dismissed till following periods.	8 weeks from beginning of illness.

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	SCARLET FEVER.
Murchison. <i>Transactions of Clinical Society</i> , vol. xi. London, 1873.	1 to 7 days. Usually about 48 hours.
Vacher.* "The Duration of the Latent Period, the Fever, and the Infectiveness of the Exanthemata and some Allied Diseases." John Heywood, Manchester [1884]. Reprinted from the <i>Health Journal</i> . Manchester, 1884.	1 to 14 days. Usually 3 days.
Squire. <i>Collected Essays in Preventive Medicine</i> (J. & A. Churchill, London, 1887), p. 11. <i>Comp. Epidemiological Society's Transactions</i> for 1873.	2 to 8 days. Usually 2 to 5 days.
Richardson. <i>The Field of Disease</i> . Macmillan & Co., London, 1883.	1 to 6 or 8 days.
Stephenson. <i>The Fight with Infection</i> . D. Wyllie & Son, Aberdeen, 1879.	2 to 7 days. Rarely later.
Clement Dukes. <i>Health at School</i> . Cassell & Co., London, 1887. Compare <i>Lancet</i> , 29th Oct., 1881, vol. i, p. 743.	1 to 7 days. Usually 4 days.
Newsholme. <i>School Hygiene</i> . Swan, Sonnenschein, Lowrey & Co., London, 1887.	1 to 7 days. Usually 4 days.

* The dates are modified from Dr. Vacher's table to

	SCARLET FEVER.
Alder Smith: International Health Exhibition: Conference, 30th July, 1884. (Lecture reprinted.)	11 days.
Newsholme. <i>School Hygiene</i> . Swan Sonnenschein, Lowrey & Co., London, 1887.	14 days.
Rugby School. Printed Regulations of School, March, 1883. Case C: "If immediately removed to another house," &c.	10 days.
Code of Rules passed by "the Medical Officers of Schools Association." 2nd edition. Churchill, London, 1886.	14 days.

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ORIGINAL ARTICLES.

COLLATION OF RECENT AUTHORITIES ON THE
INFECTIVE AND THE INCUBATION PERIOD IN
CONTAGIOUS DISEASES, WITH SPECIAL REFER-
ENCE TO THE EXCLUSION OF SUCH CASES FROM
DAY SCHOOLS.

By JAMES FINLAYSON, M.D.,

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Glasgow Hospital for Sick Children, &c.

IN preparing a plea* recently for the adoption of a code regulating the attendance of children at day schools in and near Glasgow, when they are affected with, or associated in any way with, contagious fevers and diseases, I had occasion to enquire into the current views regarding the infective period of the various contagious diseases prevalent among children, and also regarding the period of their incubation. The former controls the duration of the seclusion of the sick, and the latter the period of quarantine for the healthy who have been in contact with infection.

The determination of these periods is a matter of great difficulty, requiring special and comparatively rare circumstances to fix the dates with precision ; moreover, the results are apt to be confused in some cases by uncertainty as regards the thoroughness of disinfection of the clothes, especially of

* Submitted to a Meeting of the Glasgow Philosophical Society, on 3rd April, 1889.

some articles apt to be neglected, as the insides of boots, &c. ; or, perhaps, the infection may linger in the hair of the patient in the same way as in his clothes, although these and the skin itself may have been carefully washed and disinfected.

Of late years much attention has been directed to this subject, and some very important and accurate data were published by the late Dr. Murchison in a paper communicated by him to the Clinical Society of London (*Trans.*, vol. xi, Lond., 1878: "Observations on the Period of Incubation of Scarlet Fever and of some other Diseases"). In this paper references to current opinions are given. Another valuable paper may also be mentioned for further references to the published opinions of various authorities on this subject—viz., on "The Hygiene of the Infectious Fevers," by J. W. Miller, of Dundee, published in the *Edinburgh Medical Journal* for October and November, 1880.

Dr. Haddon collected from members of the Lancashire and Cheshire branch of the British Medical Association, about 1874, some data on this subject, and in Dr. J. W. Miller's paper some figures are given from his MS. read in 1877; they are not, however, very numerous. This early application of the "collective investigation" method to this subject was to have been followed up lately by the British Medical Association itself (see Dr. Ransome's address, *Brit. Med. Journal*, 1887, vol. i, p. 207); but the results, if any, have not yet been published, and I understand that this enquiry has been departed from. Dr. Ransome, who has for years taken much interest in this subject, informs me that the College of Physicians of London have taken up the matter, and under the guidance of Dr. Broadbent we may look for important results from that quarter.

In the meantime, I thought a collation of the views of various authorities might afford some guidance in preparing such a "Code" as I desire to see adopted. The diversities of opinion are considerable, but if looked at from the practical point of view of fixing safe dates in regulations for infectious diseases, it will be seen that there is an approach to agreement. Of course, in such regulations we must have regard to the exceptional cases, and not to any mere average results.

In addition to other authorities, I have included the results arrived at by a committee of the "Medical Officers of Schools Association," embodied in their *Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools* (2nd edition. J. & A. Churchill, London, 1886. Price 1s.) I have also included an abstract of the Rugby School regulations.

Most boarding schools have regulations and schedules of their own with details of this kind; and I have given this specimen as the medical officer of this large school kindly sent me a copy. I have in the same way added the periods adopted in the regulations of the City of Glasgow Fever Hospital, at Belvidere. Every fever hospital has special regulations, but our own Hospital has naturally most weight here.

As regards cutaneous infectious diseases, I have not included them in the table, although they are referred to by various authorities. In their case some *special* certificates seem required, and the same may be said of contagious ophthalmia.

The periods named as safe in the *Code of the Medical Officers of Schools Association* agree very well with my own opinions, based on what I have seen and known; except that I think eight weeks, instead of six, should be fixed for the seclusion of scarlet fever patients. So far as it goes, this *Code* might, in my opinion, be adopted, with this correction, for day schools here. For day schools, however, we require more detailed guidance as regards various special complications, as in the case of children, more or less separated from the infected member of the family; when, for example, separate houses are taken, on purpose, when infection arises in a family. A clear deliverance on various doubtful or debated points is required: as on the question of the exclusion of healthy children coming from homes where a case of enteric fever may be running its course; or the exclusion of healthy children who may themselves have had whooping-cough, but whose younger brothers or sisters at home may be passing through this illness. In many large boarding school establishments, with an isolation room and efficient disinfecting stoves, the responsible medical officer can admit with confidence boys *known* to be protected by a previous attack of the illness, coming from infected houses, in a way which would be disastrous to the health of the pupils in an ordinary day school, so that regulations suitable for the one set of schools are not suitable for the other. In some way or other I hope that a "*Code*" may be devised for the guidance not only of schools and parents, but also of medical men, who are sometimes suddenly called upon to sign certificates of safety regarding diseases which they may have very imperfect information about in this respect. At present the admission of a single child through some laxity of regulations or ideas, may often undo much, if not all, the benefit resulting from the rigorous seclusion from the same school of many others, carried out conscientiously for weeks at much expense or inconvenience. Children are not infre-

quently sent back to school with medical certificates of freedom from infection at periods very much earlier than those stated in the *Code* quoted in this table. It is a delicate matter for teachers to overrule such certificates; but if all these were controlled by an adopted code, comparative safety might be secured without offence to any of those concerned.

A CASE OF RETINITIS ALBUMINURICA WITH PIGMENTARY CHANGES.*

(*With a Chromo-Lithographic Illustration.*)

By A. MAITLAND RAMSAY, M.B.,
Assistant Surgeon, Glasgow Eye Infirmary.

Mary M'G., aged 24, a mill worker, was admitted, under the care of Dr. Reid, to the Glasgow Eye Infirmary on the 3rd April, 1889. She complained of dimness of vision, and stated that she had been suffering from "kidney disease" for the last 20 months. With the exception of an attack of scarlet fever when she was very young, she had always enjoyed good health until the onset of her present illness, which she attributed to over exposure to cold, and which began with severe head pain, accompanied by vomiting. Both those symptoms were worst in the morning, and in a few weeks from the commencement of her illness she observed that her face was puffy, and that her ankles were slightly swollen, while her urine had become much less in quantity, was of a high colour, and frequently turbid. As she thought she was simply suffering from severe gastric derangement, she continued off and on at work for 5 months, when gradually increasing dropsy compelled her to seek admission to the Dundee Royal Infirmary. It was while she was an inmate of the infirmary that she first complained of failing sight. She stated that while she was having a vapour bath the vision suddenly became obscured in both eyes as if by a mist, and so rapidly did this dimness of vision increase, that in less than three weeks from the day on which it was first noticed, her sight became as defective as it is at present.

Examination of the cardiac region reveals marked hypertrophy of the left ventricle. The apex beat is diffuse, and is situated in the sixth interspace, $4\frac{1}{2}$ to 5 inches to the left of the

* Shown at the Glasgow Pathological and Clinical Society, Monday, 8th April, 1889.

middle line. A systolic murmur is heard along the sternum, and there is very well marked accentuation of the second sound over the aortic cartilage. The pulse is of high tension, and beats from 70 to 80 per minute.

The urine measures 52 oz. in the twenty-four hours, is pale, of specific gravity 1011, contains $4\frac{1}{2}$ grains of urea per ounce, and under the microscope shows numerous fatty and granular tube casts, with abundant epithelial *débris*. By the ordinary tests the amount of albumen present is estimated at one-fourth.

Vision.—With the right eye the patient can read the largest letters, but with the left she can make out these only with great difficulty. On ophthalmoscopic examination, the left optic disc is seen to be pale and oval-shaped vertically, and the congenital cup is filled up. All round the disc, but especially at its outer aspect, there is an atrophied condition of the choroid. The veins are of normal size, and are accompanied by white lines, but the arteries are almost completely obliterated. Their course is represented by yellowish-white streaks, and a thread-like column of blood is visible only in the neighbourhood of the optic disc, and for a very short distance beyond it. Aggregated in small patches, and scattered generally all over the fundus, are the spots characteristic of albuminuric retinitis. Some of these spots are round, others are irregular in shape, and while some present a white glistening appearance, others have a more or less yellow colour. A single hæmorrhage of considerable size occupies a position a few millimetres below the optic disc. In addition to the white spots, numerous pigment patches are abundantly scattered over the fundus. In the region of the macula, and in many other positions, the pigment patches are more or less round, and are encircled by a ring of atrophied choroid, and in the neighbourhood of those larger patches minute specks of pigment are seen in considerable abundance. Towards the periphery of the fundus there is an arrangement of the pigment somewhat resembling that which is frequently observed in retinitis pigmentosa. (Fig. 1.)

The ophthalmoscopic appearances presented by the right fundus are the same in kind, and differ only in degree from those just described. There is almost complete obliteration of the arteries as blood-channels, and hæmorrhages, with aggregations of white and yellowish spots, and pigment in minute specks or in patches, are present as in the left eye, but to a less extent. (Fig. 2.)

The ophthalmoscopic appearances in the case just described

are those of albuminuric retinitis in its later stages. It will be interesting to try to explain the ophthalmoscopic picture by giving a short account of what is known to be the pathological condition of the retina when it becomes inflamed as a result of renal disease. In the present instance it is not considered necessary to say anything about those cases where there is complete blindness, lasting for a longer or shorter time, but where ophthalmoscopic examination reveals no retinal lesion. In such cases the extreme failure in vision is always associated with other functional disturbances, which are well known to be the result of uræmic poisoning, and the apparent integrity of the retina on ophthalmoscopic examination justifies the supposition that the visual defect is also functional and due to the same cause.

In Mary M'G.'s case, however, there were special and peculiar changes in the retina and its blood-vessels, in the optic disc, and in the choroid.

1. *Changes in the Retina and its Blood-Vessels.*—Gowers* has pointed out that in chronic renal disease there is a notable diminution in the size of the retinal arteries, which "are not more than one-half or even one-third the diameter of the veins, instead of being two-thirds or three-quarters the diameter," and Brailey† has demonstrated that even when no ophthalmoscopic changes are visible the microscope has proved that the walls of the arteries are invariably altered. This change in the arteries consists in a thickening of their walls, so that the vessel becomes converted into a more or less rigid tube whose lumen is greatly constricted, or it may be completely blocked, by the proliferation of its endothelial lining. In the normal condition the walls of the blood-vessels are so transparent and possess an index of refraction so nearly equal to that of the surrounding media, that they are not visible on ophthalmoscopic examination; but the refractive power of this new formation is much greater, so that the walls of the blood-vessels are now easily seen, and present the appearance of yellowish-white streaks. In the early stages the blood-column—not much reduced in size—is seen to be accompanied by white lines, but as the sclerosis of the vessel walls and the proliferation of their endothelial lining increase, it becomes gradually narrower and narrower until, as in the present case, it almost entirely disappears, and what was once a blood-channel becomes converted into an impermeable fibrous cord. The veins are not altered to the same extent as

* *Medical Ophthalmoscopy* (ed. 1882), p. 181.

† *Trans. Ophth. Society*, vol. i, p. 44.

the arteries, but they are usually very tortuous and engorged with blood. With arteries so brittle and veins so much engorged it is not surprising that hæmorrhages are of frequent occurrence. They are rarely absent, and are usually situated in the nerve-fibre layer of the retina, where they are of small size, and assume a striated or flame-like appearance. Some follow the course of the retinal blood-vessels, and Galezowski * has figured a case where the blood was retained in the lymphatic sheath surrounding a vein, and so produced an aneurismal dilatation of its trunk, but as a rule it is very difficult to trace the hæmorrhages to their exact source. Sometimes they are larger, of different shapes, and occupy deeper layers of the retina, but a hæmorrhage into the macula lutea is not nearly so frequently observed in albuminuric retinitis, as it is in the simple hæmorrhagic form. In addition to the hæmorrhages, white spots of varying size and shape are always present, and situated for the most part round about the optic disc and in the neighbourhood of the macula. These white spots are due to degenerative processes, and many of the larger ones have been preceded by hæmorrhages, which are now whitening before they disappear. In some instances, on one examination, a hæmorrhagic fringe is seen to surround a white patch, while a subsequent examination reveals that the whole of the hæmorrhage has become decolourised. But the white spots most characteristic of the chronic forms of renal disease have never been hæmorrhages. They are usually of small size and triangular shape, and present a peculiar glistening pearly appearance. They may occur in little groups at the bifurcation of a blood-vessel, but by far the most common arrangement is in the form of a star radiating from the macula. This peculiar stellar arrangement of the spots around the macula is easily understood when the anatomical distribution of the radial or Müller's fibres in that region is kept in mind. As a rule, the nearer the macula the smaller are those white spots, and Dr. Reid has drawn my attention to the fact that they are the result of exudation into, and correspond in size with, the interspaces between the groups of Müllerian fibres. It is very interesting, therefore, to observe that those interspaces also increase in size as we pass from the macula towards the ora serrata. Like the hæmorrhages, those white spots are also transitory, and may disappear completely. When this occurs, the retina presents a dull reflex on ophthalmoscopic examination, and this dark appearance may be accounted for by the presence, in the outer granular layers,

* *Traité des Maladies des Yeux* (ed. 1888), p. 612.

of large pigmented cells, which are probably identical with the leucocytes which are known to be present in considerable quantities in this region during the early stages of the retinal affection. Such a satisfactory termination is frequently observed in retinitis, the result of the albuminuria of pregnancy. The following is an illustrative case:—Mrs. C., æt. 37, was first seen in April, 1888. She was then pregnant, and complained of dimness of vision. With her right eye, she could only make out letters in No. 14 of Jäger's test types, but with her left she could read the smallest print. The urine had a specific gravity of 1015, and contained albumen. In her right eye, the ophthalmoscope revealed characteristic white spots in the region of the macula, but no abnormality was detected in the fundus of the left eye. The patient was again seen in the beginning of the present year, when it was noted that the characteristic white spots formerly observed in the macular region had almost entirely disappeared, and their place was occupied by pigment deposits, in the midst of which a very few minute white glistening spots were still to be made out on careful ophthalmoscopic examination by the direct method. The vision in this eye was now so much improved that she was able to read letters in No. 6 Jäger. The left eye was still unaffected. In such cases the pigment is deposited in the form of brownish cells upon those Müller's fibres which bound the spaces that formerly contained the white spots.* This case also illustrates the fact that in retinitis associated with the albuminuria of pregnancy one eye only may be affected, but when the retinitis is the result of chronic renal disease, both eyes are, as a rule, affected simultaneously.

2. *Changes in the Optic Disc.*—In Mary M'G.'s case the optic nerves are atrophied, but before this extreme condition can be arrived at various pathological changes must occur. These are more or less of an inflammatory nature, and may vary in degree from a simple obscuration of the edges of the disc, as a result of serous infiltration, to a condition in which the papilla has become so swollen, as a result of inflammatory exudation, that the appearances presented are with difficulty to be distinguished from an inflammation of the optic nerve due to cerebral disease. It is in the more acute cases of renal affection associated with retinal changes, that the optic disc is most seriously implicated. The retina round about the disc loses its transparency from œdema and the infiltration of its interspaces with a coagulable fluid con-

* For this observation I am indebted to Dr. Reid.

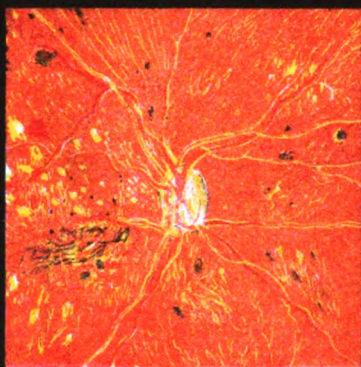


FIG. 2

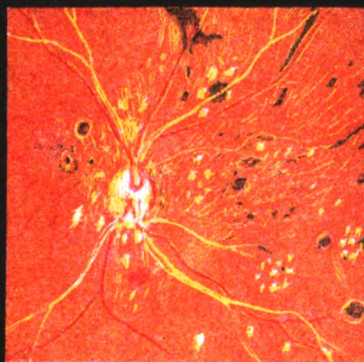


FIG. 1

taining large cells undergoing fatty degeneration, and its nerve fibres become hypertrophied, varicose, and sclerosed. The blood-vessels are partially obscured by exudation, and white patches of much larger size and softer outline than those previously described are scattered over the fundus, arranged, however, for the most part around the swollen papilla. Several of these frequently run together so as to form white patches of large size and irregular shape. There is an increase in the number and size of the smaller blood-vessels, and the veins over the disc are so swollen and tortuous that rupture frequently occurs, and hæmorrhagic spots are visible in the midst of the exudation. In recent cases, as in scarlatinal albuminuria, those changes as a rule disappear and vision is perfectly restored, but the more solid the exudation the more likely is the nerve to suffer, and the vision in consequence to be permanently impaired. In the more chronic cases of Bright's disease, however, oedema may be entirely absent, and a slight increased vascularity of the optic disc, associated with a few minute white spots around the macula, may be all that can be detected on ophthalmoscopic examination. The appearance of the disc in such cases resembles that seen in various forms of neuritis due to the introduction of poisons from without, *e.g.*, lead, &c., and is probably brought about by the irritant action of the morbid poisons which are generated within the system and circulate in the blood as a result of the renal inadequacy.

3. *Changes in the Choroid.*—It has been asserted that the choroid always remains intact in albuminuric retinitis, but microscopic examination has shown that albuminuric retinitis is essentially a chorio-retinitis with a very marked tendency to fatty degeneration. In chronic Bright's disease, where alterations in the arterio-capillary system are so widespread, it would be difficult to explain how a vascular structure like the choroid could escape. Virchow has, however, demonstrated that the choroid is implicated, and has described a sclerosis of the chorio-capillaris, similar in kind to that which occurs in the walls of the retinal blood-vessels; and in the neighbourhood of those sclerosed patches alterations in the pigment are easily made out. Hæmorrhage from the choroid has also been seen, while in very severe cases the retina is detached by coagulable exudation. Such an exudation from the choroid exercises a most pernicious effect upon the layer of rods and cones, which become macerated in the fluid, swell up, burst, and are thus completely destroyed. In Mary M'G.'s case, however, the atrophy of the choroid and the pigmentary

changes are far too extensive to be readily explained, unless the albuminuric retinitis has been superadded to a previously existing chorio-retinitis with a tendency to the formation of pigment. How far this pigmented form may be of specific origin cannot be easily estimated, for otherwise the patient presented neither symptoms nor signs in any way suggestive either of acquired or hereditary syphilis. In both the albuminuric and the pigmentary forms of retinitis, the pathological changes lead up to a sclerosis of the retinal elements, with complete destruction of the layer of rods and cones, and the supposition that both those conditions are present in this case is supported by the diffuse nature of the retinal lesions, and by the fact that the appearances presented by the optic nerves closely resemble those frequently observed in retinitis pigmentosa. In simple albuminuric retinitis, no matter how far advanced or how severe it may be, the lesions are confined to the posterior region of the retina, while the peripheral parts always preserve their perfect integrity; but in pigmentary retinitis, on the other hand, peripheral defects exist for years before the central parts of the retina become implicated. Hence, then, the explanation why in Mary M'G.'s case the amblyopia is so extreme and widespread, for the central defect is due to the hæmorrhages and the exudations resulting from the albuminuria, while the defects towards the periphery result from the chronic pigmentary changes. On the first examination of such a case as this, the attention is at once arrested by the unusually widespread dimness of vision, and the chief interest in the investigation lies in the satisfactory explanation afforded by the co-existence of the two forms of retinitis.

A LECTURE ON THE DUTIES AND TRAINING OF THE MEDICAL NURSE.

*Being the first of a course of lectures delivered during the past winter (1888-89)
to the Nurses of the Glasgow Hospital for Sick Children.*

By JOHN LINDSAY STEVEN, M.D.,
Extra-Physician to the Hospital.

LADIES,—I have had very considerable difficulty in choosing a subject for the course of lectures which I have been asked by our Directors to deliver to you. At length, after considerable deliberation, I have determined to occupy myself

during the present course mainly with the discussion of the following subjects—viz. :—

- (1.) Digestion and diet in childhood.
- (2.) The diseases of children directly associated with errors of diet.
- (3.) Infection in its various forms.

Before, however, passing directly to the subject-matter proper of the course, I have thought it right to devote two or three lectures to matters of more general interest in connection with medical nursing—not of sick children only, but of all sick persons. I cannot proceed further without, also, referring to the fact that those of my hearers who have had longest experience, and who are furthest advanced in their nursing studies, may be more or less familiar with much of what I am about to say. But you must remember that a lecturer should endeavour so to arrange the instruction he wishes to impart that it will be suitable for all, the uninitiated as well as the more advanced student. It is an old saying, but a true one, that a good story is none the worse of being twice told, and if what I am going to tell you in these lectures be worth telling at all, it will do the more experienced members of my audience no harm to hear it again.

ACCURACY OF OBSERVATION AND REPORTING.

In the first place, then, let us consider a few of the duties incumbent upon, and the general qualifications required of, those who lay themselves out for the important work of nursing the sick.

Every nurse should always, from the very outset of her work, bear carefully in mind the *absolute necessity of accurate observation, and of accurately reporting the phenomena* which she observes at the bedside. No symptom, no expression of pain, no feature of the case which may be seen by the nurse during her vigils should be regarded as too trifling or unimportant to be recorded. I have no doubt that my colleague, Mr. Maylard, has impressed this necessity upon you, but I have also to do so from the medical point of view. In some respects, it is even more necessary for the medical than the surgical nurse to bear this duty always in mind—because in the medical ward it is more difficult. In the surgical ward, as a rule, you have generally something tangible to deal with—something that you can see and handle, such as the occurrence of bleeding or the displacement of a bandage. Very often this is not so in the medical ward, and the nurse, like a

faithful sentinel, must keep her powers of observation continually on the alert to detect transient signs and symptoms, which are easily overlooked, and which, if missed and not reported to the physician, may result in erroneous views as to diagnosis and treatment, and in consequent defeat of our efforts to overcome the forces of disease and death. The observation by the nurse of a temporary squinting of the eyeballs, or of a passing slight convulsive spasm of the arm or leg, may often be the means of throwing quite a flood of light upon the true nature and locality of an obscure nervous disease. The position which a child assumes during sleep or during an attack of griping pain, and which, as a rule, can only be observed by the nurse, may give valuable information as to the nature of its disease or the seat of origin of the pain. . . . Other illustrations might be given, but sufficient has been said to prove how invaluable to the physician, in his warfare with disease, is the careful accurate report of an intelligent and faithful nurse.

INTELLIGENT OBEDIENCE.

The next and not less important duty of the nurse is to *carry out strictly, accurately, and intelligently the instructions of the physician*. The nurse never has the treatment of a case in her own hands; she must never proceed upon her own responsibility; and above all, she must never presume upon her own knowledge. This is so well known to all who have received even the elements of a training in the duties of nursing that it need not be further dwelt upon; but it must never be forgotten; there is no room here for that familiarity which breeds contempt. This much, however, being granted, it does not at all follow that the nurse is not to use her intelligence. Quite the contrary. The nurse is by no means to be a mere automaton or machine. Most of you would refuse to occupy such a position, and I for one would never ask you to do so. The mechanical, unquestioning, do-or-die obedience of the private soldier is neither desirable nor necessary in sick nursing. Nurses are officers in the army drawn up to do battle with disease, and in the absence of the commander much will frequently be left to the trained intelligence and skill of the nurse. Intelligence in a nurse, then, is as important as accuracy of observation or obedience, but always remember that a nurse cannot be intelligent who is not also accurate and obedient. There are mainly two directions in which a nurse's intellectual powers may be exercised (1) in acquiring the ability

to understand aright the orders which are given; and (2) in learning how to conduct herself in the presence of those emergencies which are of such frequent occurrence in medical practice, and which so often test to the uttermost the powers of the most skilful. With regard to these two points let me give you a brief advice—if you do not understand an order never hesitate to ask an explanation, it is your duty not to hesitate to ask, and it is the physician's duty not to hesitate to give, an explanation. In the presence of an emergency get the doctor as soon as possible, and if time must elapse before this is possible and if the patient's need be very great, try something which past experience may indicate as likely to be of service—but do not be rash, and let the doctor know every detail of what has been done when he comes. Having done this, you have done your duty.

THE GENERAL QUALIFICATIONS OF A NURSE.

Let me now speak briefly to you of the general qualifications demanded of those who would devote their lives to the nursing of the sick. Let me read to you what is required of a nurse-probationer, even before she begins her training, under the Nightingale Fund—it reads thus:—"You are required to be sober, trustworthy, cleanly and neat, honest, punctual, patient, cheerful, truthful, quiet and orderly, and kindly."* Not every one, then, is qualified for this work, either mentally or physically. Like the true aspirant to the Christian ministry the true nurse should be the subject of a call—the call of love to humanity and of heartfelt sympathy with human suffering. This should be the chief motive force in the choice of nursing as a profession, without which no woman should enter it, and before which all other determining elements in the choice should sink into insignificance. And, if this be true of nursing in general, how much more true is it of nursing sick children. "Suffer the little children to come unto me" should be indelibly engraved upon the heart of every nurse in a sick children's hospital; and the noble self-sacrifice of the good women of the past who, heart and soul, have devoted their lives to the alleviation of human suffering and the consolation of human sorrow should ever be her grand ideal to strive after. Do not think that the work is easy, or the path broad and smooth along which you must travel in the prosecution of your labours. It is indeed no easy thing to be a good nurse; or to acquire

* *Hospital Hygiene*, by Charles Langstaffe, M.D. (London: J. & A. Churchill, 1872), page 40.

the necessary training and experience. "Nursing," says Dr. Langstaffe, "is one of the gifts granted to individuals at birth,"* and, in a sense, perhaps he is right. Constant self-denial, long-suffering forbearance with the peevish irritability born of sickness, never failing kindness and gentleness, firmness in carrying out instructions and in resisting the morbid cravings of disease, and the maintenance of a cheery pleasant demeanour in the midst of much that is provocative of grief or that excites feelings of repugnance or disgust are all qualities which must characterise every nurse worthy of the name.

THE PLACE AND VALUE OF LECTURES IN A NURSE'S TRAINING.

I have thought it right, chiefly by way of introduction, to refer to a few of these more general points, and now it behoves us to endeavour to get somewhat closer to the subject-matter of our present course. With regard to the method to be adopted in these lectures, I have to say that it is my earnest desire to render them as thoroughly practical as possible. In lectures, as lectures, I have but little faith. Mere *ex cathedra* prelections on any subject of study are fast becoming things of the past, because in these days of excellent text-books and cheap literature the real need for them has in great measure disappeared. In the present time those lectures only which are illustrative of or supplementary to practical work, are likely to be of real and lasting value to the hearer. In mere talk then we have no help—mere formulas avail us nothing. Thomas Carlyle was a great talker as well as a great writer, and yet one of his favourite maxims was "silence is golden;" but then he felt far more than most men can feel how much there is to do and to learn that can never by any possibility be put into spoken words. It shall therefore always be my earnest endeavour to make such an illustrative and practical spirit pervade these lectures, because for you, as for the physician, practical experience, unremitting labour in the wards, untiring observation of the ever varying phenomena of disease must ever rank far above mere lectures.

You will see then that the real object of the lectures to which you are now asked to listen is not to make you nurses, but to point out to you those things at which you must devotedly labour in order to make yourselves nurses. To indicate to you the road—or rather the rugged and difficult mountain track over which you must laboriously travel if you

* *Loc. cit.*

would attain to the highest peak of success and usefulness in your profession.

Do not put an undue value then upon the lectures. Rather put the value on what they lead you to do—on the insight they give you of the things you must labour at to gain experience—and on the difficulties of your daily life which they may help you to overcome. Ever keep practice and the practical in the forefront of your efforts, for now-a-days we judge of the true value of a nurse or of a doctor, not by theory but by practice, not by words but by deeds.

BOOKS: THE VALUE OF PHYSIOLOGICAL KNOWLEDGE: THE EDUCATIONAL INFLUENCE OF HOSPITALS.

And now I wish to bring this introductory lecture to a close by saying a few words to you about the books which you should study as a help to you in your practical work. There are chiefly two classes of books which every nurse, who wishes to know her work well, should study: (1) Books on animal physiology, and (2) books on the subject of sick-nursing. Under both of these headings, I do not think I am exaggerating much, when I say that the market is literally flooded; the task, therefore, of advising you what particular works on each of these subjects you should read is by no means an easy one. In order to give you a thoroughly comprehensive advice, I would need to have read them all myself, and I hope you will not think that, even to prepare this course of lectures, it is necessary for me to have performed such a Herculean task. I will, however, in the course of the next few sentences, mention one or two books, which I think may be of some service to you.

Of the importance of physiological knowledge not only to nurses, but to the general public, I need not speak; it is recognised by all, and our greatest writers and thinkers have with one accord admitted it. There is no doubt that a very large proportion of the diseases flesh is heir to, and, as a necessary consequence of, the suffering, sorrow, and even vice, which so largely prevail throughout all the sections of our social economy, is directly to be attributed to gross ignorance of the most elementary physiological principles and problems. I say nothing here of moral evil and suffering except this, that if physiological knowledge were more widely spread throughout all ranks of the community, we would have less immorality and less vice in our midst. If what I have been saying of the importance of physiological knowledge to the public at large

be true, how much more true is it when applied to you, who have devoted yourselves to the work of assisting in the warfare of mankind against disease. And in this connection let me say that by the general public the hospital is too much apt to be regarded as a mere curative establishment, whose sole object is the care and treatment of the diseased. But, if we consider it well, we will at once see that every well equipped hospital should be far more than this—viz., a great educational organisation for the education of the public in physiological principles and the general laws of health. If our great public hospitals fulfil their duty well, then every patient who may improve or be cured of his malady within their walls should leave them a better man than he entered, not only physically, but also mentally and morally. It should be the duty of hospital doctors and nurses alike, not only to take care of the bodily ailment, but also both by precept and example, to impress upon patients the necessity of observing the general laws of health, and to teach them the great fact that perhaps about half of all our diseases are directly or indirectly traceable to the infringement of these laws. Do not think that, because you are nurses in a Sick Children's Hospital, you are exempted from this duty. I would say that this part of a nurse's duty is even more binding upon you than upon your sisters engaged in general hospitals. And why? Because you have to deal with that period of life which is most plastic, not only physically, but mentally and morally, and which is therefore most easily impressed for good or evil by precept and example. Children under treatment in these wards may easily obtain a knowledge of the fundamental laws of health, and acquire habits of cleanliness and temperance which may be of the greatest service to them and all who come into contact with them during the remainder of their lives. The widespread—I might even say cosmopolitan—influence for good, in matters sanitary and hygienic, of a single, earnest, and devoted nurse, is one of the things that cannot be put into words—it is unspeakable. I hope, then, that by these remarks I have made plain to you the great necessity and importance of physiological knowledge, of that knowledge by which we understand the healthy structure and function of our bodily organisms. The physiological books which I would recommend to your careful perusal and study are Huxley's *Physiology*, and Prof. Cleland's *Animal Physiology*.

With regard to books on the subject of nursing itself, I have not very much to say. Always remember this, however, that you cannot become nurses by the perusal of books any

more than by the attendance at lectures. Books can never be more in this matter to you than guides—guides to your practical work, which must ever hold the first place in your estimations. I have heard it urged against books on nursing, that the details they often give are too simple and obvious, and that the self-respect of the reader is often apt to be offended by such instructions as “you must not drink the patient’s stimulant.” Now, I do not wonder at such a direction as that I have just stated, arousing feelings of indignation in any refined and earnest mind. On the other hand, one must remember that text-books are written for all classes of readers, and also that in the days of not very long ago nursing and the nurse did not rise to the same high level as now. With regard to the first mentioned objection about simplicity and minuteness of detail, I have not the same objection to urge. The nurse who is most attentive to detail, who masters thoroughly the simple rudiments—the beggarly elements, if you like—will always make the best nurse in the end. There can be no doubt of it—reason expects it and experience proves it. Remember that not only life, but success in life, is made up of little things. Of the many books on this subject I shall only mention three or four—*Florence Nightingale’s Notes on Nursing*. Joseph Bell’s *Notes for Surgical Nurses*. Wallace Anderson’s *Medical Nursing*. Allan’s *Fever Nursing*.

I would like you all carefully to read Miss Nightingale’s book, partly from its historical value and the associations it recalls, and partly because of the sound common sense which pervades its every page. Never mind although you may feel inclined sometimes to resent the assertiveness of the writer, every feeling of this kind is soon lost in the memory of the noble devoted life of one, whose name was a household word in our land in a time of great national sorrow and trial, and whose influence is still felt in every hospital of the country. You will find in the book things to make you smile, and things to excite your pity and indignation, and withal, I believe you will rise from the perusal better and wiser than before.

I would like also to direct your attention to another book, which you will read not only with pleasure, but with profit. I refer to *The Management of Infancy*, by Andrew Combe, M.D., the ninth edition of which, edited by Sir James Clark, Bart., M.D., I now show you. If we could get our citizens to manage their children more in accordance with the excellent principles laid down in this book, there would be less need for Sick Children’s Hospitals, and fewer fees, though perhaps I should not say it, for the family doctor.

NOTES OF SURGICAL CASES.

By J. CRAWFORD RENTON, M.D.,

Assistant to the Professor of Clinical Surgery in the University of Glasgow;
 Surgeon to the Dispensary of the Western Infirmary; and Surgeon
 to the Eye Infirmary, Glasgow.

CASES OF CLUB FOOT.

J. M., æt. 11, was admitted to the Western Infirmary in August, 1885, suffering from severe talipes equino-varus in the left foot. It had occurred when 2 years of age, after an attack of bronchitis, and as is shown by fig. 1, the foot was no service to the lad. After consultation with my surgical colleagues, I decided to remove a wedge from the tarsus, and

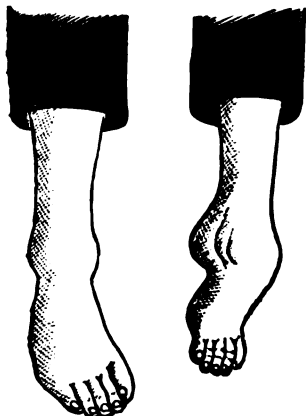


FIG. 1.



FIG. 2.

this I did on 25th August, using the chisel in excising it. The result is shown in fig. 2, the photograph from which the woodcut was taken being done 8 months after operation, and I understand the lad continues to keep well.

D. R., æt 7, was admitted to the Training Home for Nurses 20th November, 1886, suffering from relapsed double talipes varus of a severe form, as is shown in fig. 3. I had previously had the child under my care when an infant, and had then divided all the structures in the soles of the feet and the tendo Achilles, with a good result for a time.

The case now presented features so severe that it was quite evident some more radical operation must be attempted. The left foot being the worst I decided to remove the astragalus from it, and this I did on 24th November, 1886, assisted by Drs. Beatson and Somerville. A single incision from the tip

of the external malleolus downwards and forwards as is recommended by Mr. Lund, Professor Buchanan, and others, was adopted, and without much difficulty the bone was removed, the foot at once came into good position, was placed in a box splint, and continued to progress favourably.

As the right foot was not so deformed as the left I performed Phelps' operation on it, dividing all the resisting structures in the sole of the foot from without inwards, skin included, this latter being of importance. The foot could now be easily put at a right angle with the leg, and healed without any trouble.

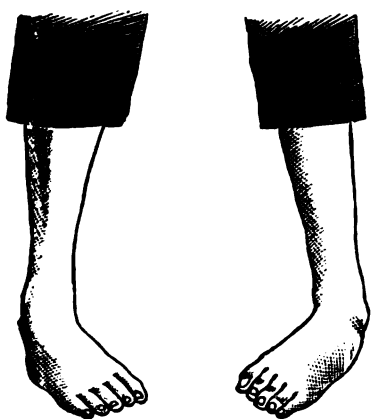


FIG. 3.

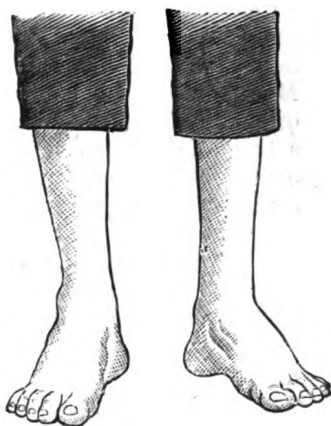


FIG. 4.

It is now more than 2 years since the operation, and the boy continues to keep well, and is able to play at football with his companions. Fig. 4 shows his present condition.

S. M., æt. 2½ years, was admitted to the Western Infirmary in August, 1887, with severe double talipes equino-varus. Several operations had been performed in this case but without good result. The astragalus was removed from both feet by the same method as above detailed, there being an interval of ten days allowed between the operations. The feet were placed in rectangular tin splints and healed without any trouble. Fig. 5 represents the child's feet 18 months after operation, and there has been no tendency to any relapse, and the movements at the ankle joints are good.



FIG. 5.

Remarks.—In severe cases of club foot there is no doubt that either excision of the astragalus or cuboid, or removal of a wedge from the tarsus, or Phelps' operation, is necessary to a satisfactory rectification of the deformity, and I believe there are cases suitable for all. The above illustrates the three operations which were successful, but of course it would be impossible to generalise from so limited a number. Dr. Heron Watson, many years ago, excised the astragalus in severe club foot, and was well pleased with the result. As it diminishes the length of the foot he has abandoned it in favour of tarsectomy. Professor Lund, of Manchester, has strongly recommended excision of the astragalus, which is by no means a difficult operation, and aided by his astragalus hooks, which I have recently used, it is simplified. Dr. Wm. Macewen's able paper, read at this Society, drew the attention of the profession to his successful results with excision of the astragalus in club foot, and the importance of seeing how cases operated on in infancy remained after several years. Mr. Davies Colley's operation has commended itself more to others, and, indeed, there is a leaning at present to tarsectomy rather than to Mr. Lund's operation, on the ground that the latter diminishes the length of the foot, but as it seems to leave a greater amount of movement at the tarsal joint than the other, this may in some measure make up for the shortening. Mr. Wm. Parker's recommendation as to subcutaneous division of ligaments deserves careful consideration, but as he wisely says—"Each case must be dealt with on its own merits and according to its individual requirements."

CASES OF HERNIA.

J. D., æt. 27, admitted into the Western Infirmary in July, 1887, with left strangulated inguinal hernia. The ordinary operation was performed with the addition of removal of the sac and stitching of the pillars of the ring. This case progressed favourably, and there was no tendency to recurrence when last heard of.

J. M., æt. 1 year and 20 months, admitted 28th April, 1885, with inguinal hernia (right), which no trusses would keep in position, and yet the protrusion was not very large. An incision was made down to the sac, and without opening it, it was pushed between the pillars, and silver stitches passed through the pillars and the sac. This is aided by using specially curved needles made for the purpose. 11th May,

1886.—Has continued quite well, and does not require to wear a truss. I have tried to hear of this child since the above date, but have failed.

D. M., æt. 40, admitted to Western Infirmary, 26th July, 1886, suffering from strangulated inguinal hernia. Operation performed. Sac removed by Banks' method, and pillars of ring stitched with silver wire. This case healed without any trouble, and has continued well since. Dr. Robertson, of Milngavie, whose patient he is, and whom I saw recently, told me that he is quite well.

A. A., female, æt. 32, suffering from right inguinal hernia, was sent to see me in June, 1887, by Dr. Haldane. The hernia could be reduced with the exception of a mass of omentum, which gave trouble on several occasions, and could not be kept in position with a truss. The sac was cut down on and tied, and the pillars stitched. Healing took place without any accident, and when heard of a month ago, she was continuing well. January, 1889.

G. M., æt. 2 years and 3 months, was sent to me by Dr. Dunn in September, 1886. I found the child suffering from right inguinal hernia which trusses would not keep in position. I first tried stitching the unopened sac and pillars together, but this failed, and the hernia came down. In December, 1886, I did Spanton's operation, which was perfectly successful up to January, 1889. This month there has been a slight return, but I hope the truss used will keep it reduced, and that he may need no further operation.

J. H., æt. 1 year, was sent to see me by Dr. Garnet Wilson, November, 1887, suffering from a large right inguinal hernia which trusses would not keep in position. The sac was cut down on, invaginated, and silver wire stitches introduced. Partial returns took place in this case; so on 1st December, 1888, I performed Professor Buchanan's operation of opening the sac, turning down a portion of it to form a tunica vaginalis, and stitching the upper portion and the pillars of the ring together with Barker's silk. This healed firmly, and I hope the cure will be permanent.

Remarks.—The above cases illustrate the uncertainty of success in cases of hernia, but as Mr. Banks has pointed out, if we are able to make a patient with a large hernia able to wear a truss, it is a matter for congratulation.

Cases of strangulated hernia where the ring is not large seem the most favourable for operation. In strong children with large hernia, I think it is best to open the sac as Professor Buchanan does, and stitch it and pillars together, but in small hernia which are not amenable to a truss, stitching the invaginated sac and pillars has served me well in several cases.

EXCISION OF WRIST-JOINT.

M. G., æt. 16, admitted to Western Infirmary, 3rd August, 1886. She was suffering from extensive disease of the carpus, as also of the radius and ulna, to such a degree that Professor Buchanan, previous to starting for his holiday, agreed with me in urging amputation. To this the girl would not agree unless some other operation was tried first. I think some friend of hers had had excision performed. I accordingly without the slightest hope of success removed the carpus, with half the radius and the lower two inches of the ulna, and laid the hand and arm on a splint. Thanks to the care and assistance of Dr. Bannerman, the resident surgeon at the time, she made a good recovery, and when I saw her a few weeks ago, her arm was healed, and a most useful hand she now has, and can use the fingers fairly well considering the extent of the operation.

EXCISION OF PORTION OF INFRA-ORBITAL NERVE FOR NEURALGIA.

On 9th September, I was asked by Dr. Cook to see Mrs. K., æt. 69, who was suffering from severe neuralgia in the left side of her face. Dr. Cook kindly gave the following history:—In 1864 she thought she got cold sitting at a window watching the procession gathered in honour of the visit of the Prince of Wales, and from that date she has suffered from severe pain from time to time, requiring frequently to have morphia injected. The attack commenced generally in the left upper lip and gum, shooting up the side of the face and head, and the pain was so severe and sudden that she could not help screaming with agony. There was general tenderness over the left side of the face, especially at the point of exit of the infra-orbital nerve. Dr. Cook had urged an operation, as he had tried and others had tried all the remedies generally approved of. The patient having agreed to the operation, Dr. Cook gave her chloroform, and I stretched and removed $\frac{1}{8}$ -inch of the infra-orbital nerve. On coming out of

the chloroform, she had a severe attack of pain, which soon subsided. In a week the pain was gone, and has not since returned. April, 1889.

STRETCHING THE SPINAL ACCESSORY FOR SPASMODIC WRY-NECK.

B. A., æt. 21, was admitted to the Western Infirmary, under the care of Professor M'Call Anderson, suffering from spasmodic wry-neck; the spasm affected left sterno-mastoid, and had come on after great exposure to cold. Various medicines were tried, but as no improvement had taken place, she was transferred to Professor Buchanan's Wards, where I saw her. In the absence of Professor M'Call Anderson, Dr. Dun saw her with me.

The spasms were so severe and constant that the girl was miserable, and was most anxious to have anything tried to relieve her, and we decided to stretch the spinal accessory nerve, which I did on 10th September, making an incision immediately behind the sterno-mastoid, where the nerve passes below that muscle—it was easily found and stretched.

The spasms were completely stopped for a fortnight, and then returned, but to only a slight extent compared to what they were. She can now sit and speak without having a spasm, and it is only when nervous and excited that they trouble her.

Remarks.—Nerve stretching, neurotomy, and neurectomy are each sometimes followed by cure or decided relief to painful symptoms. In the first case for five months there has been relief, and if the pain should return, we may adopt another operation on the deeper origin of the nerve.

Mr. Campbell de Morgan introduced the operation of stretching the spinal accessory nerve for spasmodic wry-neck, and since he did so a number of cases have been recorded—some successful, some partially so. Some surgeons recommend the operation anterior to the sterno-mastoid, and some posterior, and some are inclined to favour neurotomy, and should the spasms return severely, I would be inclined to advise this.

A CASE OF MOVABLE KIDNEY WITH A PECULIAR HISTORY.

BY JAMES FERGUSON, M.B., C.M., PERTH.

ON 8th January, 1886, Mrs. C., aged 47, while eating an orange, was suddenly seized with a fit of suffocative cough, from which relief ensued after a bit of pulp was brought up. Within fifteen minutes afterwards the woman began to feel oppressed about the stomach, sick and faint, and then vomited a quantity of pure blood, amounting to at least two pints. When called to see her, I could find over the front of the chest no sign of cardiac or pulmonary derangement to account for the hæmorrhage. Slight pressure over the stomach produced no tenderness, but some gurgling. A tarry coloured motion was passed on the following day. On the 11th I was again hastily summoned, and found my patient in a state of collapse, a goodly-sized earthenware basin being almost filled with blood alleged to have been vomited on this occasion. This second attack had come on without warning as the patient lay in bed. From the date of its occurrence there was no further loss of blood beyond what darkened the stools once or twice. Despite first appearances Mrs. C. rallied and progressed, though convalescence was exceedingly slow, being attended by digestive weakness and pain, the latter after even small quantities of liquid food was taken. There was great loss of flesh. Thoracic symptoms remained absent.

On 10th March Mrs. C. was suddenly prostrated with nausea, flatulence, and pain in the abdomen. She vomited once, but only the food last consumed. The tongue was large but clean, the pulse good, and temperature 99° F. The abdominal pain was not acute, but was increased by movement of the body and by pressure; its centre was in the right lumbar region, from which it passed downwards more particularly. A distinct tumescence could be felt to the right of the umbilicus, but in remembrance of the hæmorrhage of two months before, I deemed any exhaustive manipulation inadvisable. Two days afterwards, the suffering meanwhile having somewhat increased, my friend, Dr. J. M. Hunt, of Liverpool, took an opportunity of examining the case with me, and we could make out the swelling to be of smooth surface and roundish form as it lay under the abdominal wall, while the chief portion of it passed backwards into the lumbar region. At this time the urine showed a specific gravity of 1022, and contained one-tenth albumen and abundant

urates, micturition was rather frequent. By the fifth day there was considerably less suffering, and the tumour was of smaller proportions, and could be moved about to a large extent. It receded under the ribs and returned with pressure from behind, while change of posture similarly affected it. These and other characteristic signs, including the reniform shape distinguishable at later stages, were held to justify the conclusion that the wandering body was a dislocated right kidney. An abdominal pad and bandage were applied, and, as the attack had coincided with a menstrual period (though the usual flow did not appear), particular watchfulness was enjoined as regarded the following month. With the arrival of the latter period, however, the abdominal suffering never even threatened; neither, as is noteworthy, did menstruation set in. Meanwhile, the kidney remained movable when examined by the hand. On 7th May, three months and two days after last preceding menstruation (which occurred, with scanty flow, thirty-three days after the first hæmorrhage), and two months and two days after the onset of abdominal swelling and pain, there was a sudden reproduction of the former subjective and objective phenomena, and these ran on for a similar length of time, though with less severity. Again menstruation missed. The bandage had been in use up to the moment of attack, but, of course, had then to be removed temporarily.

From the last mentioned date there has been no return of illness (menstrual included), save in the form of occasional slight dyspeptic attacks.

The patient's history, prior to the hæmorrhages, contains little that is noteworthy. Accustomed to domestic activity, living plainly but well (in a superior working-class sphere), she had enjoyed good health throughout her life, until, within the past few years, she had suffered from habitual constipation, and for some weeks from an uneasy fulness in the stomach after meals. Her confinements were three in number, always easy, and with good recoveries; youngest child 11 years old. For a year back had not menstruated quite regularly, having missed two or, at most, three periods. Was unwell just three weeks before first vomiting of blood, and again, as already mentioned, thirty-three days after. The coincidence of subsequent menstrual periods with abdominal attacks has also been fully indicated in the foregoing narrative.

The attack of illness in May marked a turning point in Mrs. C.'s history. Shortly afterwards she began to lay on flesh, and gradually she acquired most if not all of her former

plumpness. Accompanying this improvement was an increasing difficulty for the hands to detect any solid movable body in the abdomen, until a time was reached when the most searching methods could produce no mobility whatever, the kidney to all appearances having become once more fixed firmly to the abdominal wall. Soon after this my patient removed to a part of the country some thirty miles off, but she still makes occasional visits to me, "just to make sure that her *swelling* is keeping away." When last examined a few weeks ago she was in a most favourable condition.

In the case just narrated there are two sets of facts which naturally call for separate reflection and remark.

With reference to the hæmorrhages, I take it there can be little if any doubt that the source was a vessel either in the stomach or its immediate vicinity. The quantity of the blood and manner of its ejection; the gastric symptoms immediately preceding the vomiting; the *melæna* following; the existence of digestive troubles both before and after; and the absence of bronchial and pulmonary symptoms throughout—all favour such an inference. Are we to conclude, however, that the sudden breach of continuity was the result solely of the convulsive cough acting upon healthy tissues, or must we suppose some pathological state pre-existing and predisposing to the rupture? While we cannot but be arrested by such a query, it would be futile to attempt a final answer, for the history of similar hæmorrhages has been largely one of problems which the *post-mortem* table alone has solved. But in reviewing the facts before us we cannot but be impressed with the *possibility* of such a lesion as gastric ulcer, at one stage or other, antedating our introduction to the case. Dr. Brinton long ago demonstrated the existence of this disease in a large proportion of deaths from all causes, and where its existence had not been suspected. The sex of the patient, and the fact that a favourite period for the development of the affection is at the cessation of the menstrual age, are points in evidence. Again, as Habershon tells us, costiveness and slight gastric discomfort after food may be the only signs which precede a sudden fatal perforation, while "vomiting of several pints or even quarts of blood may be among the earliest symptoms of the disease." Yet these facts have, at best, only a *presumptive* bearing on our case, and deter us from, rather than favour, any positive diagnosis as to the causation of the hæmorrhage.

The second stage of Mrs. C.'s case presents features of a peculiar nature. For reasons already stated, and for others to follow, the movable body in the abdomen was adjudged to

be a displaced kidney. Among the causes of mobility of that organ rapid emaciation of the body has, by general agreement, an acknowledged position. That factor was pre-eminently present in this instance, and any one could have noted its effects within a brief period after the loss of blood, and their contrast with the former "comfortable" proportions of the woman. But yet if we closely follow the incidents above recorded, and place alongside these certain other theories as to etiology, we must give a hearing to the claims of some of these latter to have had a share, greater or less, in the production of mobility in the present case. Becquet first observed—and Newman and others have abundantly confirmed this—that during the menstrual period there is increased size and weight of the kidneys, due to a hyperæmia, and Sir James Sawyer holds that here we have the determining cause of many displacements, and a special reason why the accident is of such frequent occurrence during the child bearing age. On a first impulse one is strongly disposed to find in these observations an explanation of sudden displacement in the example before us. The abrupt occurrence of symptoms referrible to a swollen, painful body, which latterly showed itself to possess mobility, and the coincidence of the event with the date of expected onset of menstrual discharge, as well as the duration of the symptoms corresponding to that of the usual monthly phenomena—these facts seem to prove, not only a share in a periodical hyperæmia, but also that the actual moment of displacement was when hyperæmia became established. On the other hand, however, a kidney is very frequently in a condition of mobility while the fact remains unnoticed, and, it may be urged, the organ might have been loose, as the result of loss of fat, for some time before attention became attracted to it by the woman's sufferings. I am unwilling to admit this, for the reason that up to a short time before the sudden seizure in March I was attending the woman for digestive troubles, and, connecting these with the hæmatemesis, I kept on the look-out for signs of any abdominal swelling, but failed to detect such. I cannot, therefore, but accept the conclusion that while emaciation was a predisposing cause, the truly active agent was the increased weight of the kidney at the menstrual period.

But, it may be contended, the chief witness of menstruation did not appear, either at the time when displacement was first detected, or at the second attack of abdominal swelling and pain, and we are therefore unwarranted in crediting menstruation with any share in the phenomena which pre-

sented. In reply to this, we would point out that the patient was a woman who was passing through the "change," as denoted by her age and the fact of some irregularity previously. Even after the first attack referrible to the kidney she missed a month without either sensible abdominal or pelvic disturbance. And this very irregularity is presumptive evidence of a share in the phenomena of the menopause. The connection between the two sets of facts can hardly be doubted, however, by any one who carefully studies the cessation and post-cessation periods of female life. Tilt, who has made this province largely his own, not only tells us that "even after cessation periodic pelvic congestion does not abate," but also that "when the ovaries can no longer determine the menstrual flow, their disturbance over the system may be seen in the monthly recurrence of certain morbid phenomena."* And it is instructive to note that in a table in which the author shows the relative frequency of these morbid phenomena, as observed in so many cases, the highest place is assigned to "lumbo-abdominal pains." Viewing our case in this connection, may we not regard it as throwing valuable light upon the causation and nature of much suffering which women complain of at the period in question?

The complete history of Mrs. C.'s case includes an apparent refixation of the kidney. The organ certainly lost its mobility as appreciable by the hands of the observer, as well as by the senses of the woman. In the case of the very corpulent, mobility, as we know, may be made out only with difficulty, but this does not apply to Mrs. C., for though she gained largely in bodily substance, she has never become exactly *fat*. The results, indeed, strongly dispose me to place this instance in the same category with one reported by Dr. Francis Henderson in this *Journal* ("A Case of Movable Kidney permanently Cured," November, 1883). In that example, Dr. Henderson attributed the refixation to a fattening dietary, purposely adopted with the view of restoring the fatty capsule of the kidney. In Mrs. C.'s case, no such object was studied. The dietary was simply suited to her weak digestion. Milk, fortunately, agreed with her, and was largely consumed, and to it must be attributed a large share in physical restoration, general and local.

The lesson of such a case impresses a hopeful view of many examples of movable kidney. We do not expect a redeposition of fat in every possessor, but its possibility may be entertained in a certain proportion of these. The continuous

* *The Change of Life in Health and Disease.* Fourth edition. 1882.

application of a well fitting bandage is wise as a routine practice, for, as the above case illustrates, it gives the subject of displacement the prospect of deriving the fullest benefits from reacquisition of tissue. I am in the habit, indeed, of advising that measure in cases where not only the patient is unlikely to fatten again, but where the inconvenience caused by the kidney is *nil*, on the principle that we never know when suffering of an acute kind may set in. Patients themselves, however, often prove an obstacle. One lately reported to me, "Your bandage plagued me more than ever my kidney did, and I threw it away."

CURRENT TOPICS.

INDEX OF THE JOURNAL.—This Index, including the entire issue from 1824 till 1888, is now published. From considerable acquaintance with it we can say that it is most useful. To those who have the recent volumes of the *Journal*, it will be found to afford directions as to almost all the subjects of medical interest. The various departments of Original Articles, Reviews, Abstracts, &c., give, in a way for which we were scarcely prepared, a *résumé* of medical knowledge for these years, and the Index enables one to find the reference at once. Subscribers to the *Journal* can have a copy at a nominal price.

UNIVERSITY OF GLASGOW—THE SPRING MEDICAL EXAMINATIONS.—*Preliminary Examinations*.—The Half-yearly Examinations in General Education for Degrees in Medicine and Science, took place on 27th, 28th, 29th, and 30th March. The total number of candidates was 462. The entries in the different subjects and the percentages of passes were as follows:—

	No. of Entries.	Passes.
English, ...	167	70½ per cent.
Latin, ...	157	65 "
Arithmetic, ...	209	50½ "
Euclid Book I and Algebra, ...	204	59½ "
" Books II and III, ...	192	64½ "
Mechanics, ...	215	47½ "
Greek, ...	71	72 "
Logic, ...	160	64½ "
French, ...	73	59 "
German, ...	4	100 "
Higher Mathematics, ...	27	59½ "
Natural Philosophy, ...	57	59½ "
Moral Philosophy, ...	7	43 "

There were, as usual, a large number who, though they entered their names, did not put in an appearance at the examinations.

Professional Examinations.—The first, second, and third professional examinations for the degrees of M.B. and C.M. commenced on 5th April, and ended on the 12th. The entries and results were as follows:—

	PASSES.	Partial PASSES.	FAILS.	WITHDRAWS.	TOTAL.
First Professional, .	57	15	48	10	130
Second „ .	46	—	21	—	67
Third „ .	61	—	22	7	90

We give below a detailed list of those who passed these examinations.

The following gentlemen have passed the *first* professional examination for the degrees of M.B. and C.M.:—Peter Aitken, Charles James Babes, Duncan Francis Brown, William Limont Brown, David J. M. Campbell, Robert Cochrane, Robinson Ruddock Coyle, John Alexander Creighton, James Conway Davies, John D. Davies, Donald Stewart Dewar, Robinson Simpson Dickson, Hugh Colligan Donald, George Edgar, Wm. B. Ochiltree Ferguson, David Frame, Farquhar Gracie, Andrew Graham, Alfred Alex. Cumming Grant, Peter Napier Grant, Robert Gray, John Green, David Harries, John Atkinson Harrison, Æneas Henderson, Arthur Thompson Hill, Robert King Howat, William Munn Hunter, Robert James, Norman Stewart Jeffrey, Adam Kay, Neil Keith, Alexander Kelso, David Millar King, Robert Kirk, William Anderson Kirkwood, David Clark Laird, James Lamont, Andrew Lang, Hugh Lawrie, William Muir, Percy Hope Murray, Wm. Cochrane Murray, Donald Douglas Macdonald, Donald Neil Macfarlane, James M'Kay, Gilbert Park, John C. Paterson, John Robertson, William Northcote Sime, Peter Maclean Smyth, Malcolm Stewart, William Cooper Thomson, George Nelson Turner, David Charles Williams, Charles Frederick Wylie, John Yuill.

The following have passed the *second* professional examination:—Kilgour Adamson, Charles Angus Alexander, Harry Cleghorn Anderson, Thomas Primrose Anderson, William Barbour, John Fulton Barr, James Hamilton Campbell, James Easton Chalmers, David Christie, John Cochrane, William Craik, William Crichton, John Cross, Evan Davies, William Doyle, Peter Drummond, M.A., John Dunlop, Andrew Goldie, Richard Hamilton, James Jarvie Hood, Frederick W. E. Hutchison, John Johnson, Charles Lavery, William Mason, Stuart Macbirnie, Neil Macintyre, Roderick John Mackay, Charles O'Neil, William Park, William Adam Paterson, John Purdie, M.A., Brownlow Riddell, William Robertson, John Gilfillan Ronald, Ralph H. Rothery, William M'Gill Smith, Charles Symington, Andrew Watson, David Watson, Alexander Waugh, James Laurie

White, James William White, James Alexander Wilson, James Allan Wilson, Andrew Wylie, John Zuill, M.A.

The following have passed the *third* professional examination, including, in the cases marked with asterisks, the subject of pathology :—Alexander Andrew, *Arthur Arnold Beale, Robert Bell, *Thomas Kerr Bell, James Wood Boyd, John Adam Boyd, Arthur Herbert Browne, Robert Brownridge, Mungo Bryson, James Spittal Buchanan, John Calderwood, James Dick Campbell, *Herbert Cane, *James Caskie, William Clark, *John Cunningham, James Fisher, Laurence Fraser, *John Galloway, *William Gemmell, Harry Wernicke Gentles, *Malcolm Gillies, Albert Alexander Gray, *John Hardie, Charles Archibald Henderson, Walter King Hunter, John Harries Jones, Robert Kennedy, M.A., B.Sc., Daniel Kerr, Hugh Lang, Peter L. Lawrence, David Lloyd, James Paul Low, *Thomas Milbourne Martin, James Nelson Matthews, *Robert Miller, M.A., *Andrew Ronald Mitchell, *Alexander C. Morrison, Robert Alex. Morton, David Muir, Donald Murray, Robert Fergusson Macarthur, Colin M'Culloch Macaulay, M.A., Archibald M. G. Macdonald, John M'Fadyen, James Paterson MacLaren, M.A., Robt. Nichol, William Harrop Parry, *William Finlay Paton, M.A., *Alexander Patterson, James Andrew Neptune Scott, Alexander Shiels, Alexander Smyth, Robert Stevenson, James Swanson, M.A., Arthur William Taylor, Sholto D. Thomson, *William R. Kemlo Watson, M.A., Walter E. Williams, James Rashid Wortabet, James John Taylor Young.

OUT-DOOR VISITING BY MEDICAL STUDENTS.—Since the issue of our last number, in which a short article on this subject appeared, our attention has been directed to the following official announcement contained in the Medical Guide of the Glasgow University :—

“**OUT-DOOR VISITATION.**—Senior Students who have passed their Third Professional Examination are permitted to visit the sick poor in the Anderston district, under the supervision of certain Professors of the University and assistants.”

We are pleased to learn, and to call attention to the fact, that “certain Professors of the University” have taken the matter up, but we would greatly like to see a much wider and more comprehensive scheme in operation, a scheme such as could only be efficiently worked by our large hospital boards. A matter such as this should not be left to the private benevolence and enterprise of one or two, and we hope it will not be long before the official notice quoted above will read under the “supervision of *the* Professors of the University.” As it at present stands, it looks as if the Professors were not unanimous. So far as we have been able

to learn, the organisation of the above scheme does not quite correspond to that of the sketch plan we gave in our last issue. Patients are not seen by a qualified man in the first instance. In our opinion, as already expressed, the student should never be the first to see a patient, and he should never have the responsibility involved in the entire attendance on a case of illness, whether the illness be apparently trivial or serious. The scheme at present in operation at the University is evidently based on that carried out in Edinburgh, and we do not think that the Edinburgh plan is by any means perfect. In Edinburgh, if the case is not very severe, or in the care of senior students, they (the students) do the whole of the prescribing and manage the case generally, always reporting to the physician, who goes to help in any serious difficulty. This is the weak point in the whole scheme; it simply amounts to practice by unqualified men; and in our opinion the medical officers of any out-door visiting charity should be *really*, as well as *nominally*, responsible for the patients who take advantage of it. We would be much pleased to see the scheme greatly extended, as it can only be if a Board of Directors take it up, and modified in the direction we have indicated.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—The eighth ordinary meeting of the Society will be held in the Library of the Faculty Hall, 242 St. Vincent Street, on Monday, the 13th inst., at 8 o'clock. The following case and specimens will be shown:—Dr. Barr—A case of total loss of hearing, following an attack of mumps; Dr. Lindsay Steven and Dr. David Newman—A patient suffering from phthisis pulmonalis, complicated with hoarseness, due to paralysis of the left vocal cord; Dr. Finlayson for Dr. Peden—A specimen of obstruction of the pylorus in a young infant; Mr. Maylard—Various plate cultivations of air organisms exhibited by illustrations of a new kind; Dr. Thomas Reid will show sections of pigmented sarcoma in its early stages, and a case of retinitis pigmentosa.

A. ERNEST MAYLARD, *Hon. Sec.*,
4 BERKELEY TERRACE.

J. LINDSAY STEVEN, *Hon. Edit. Sec.*,
34 BERKELEY TERRACE.

ANDERSON'S COLLEGE MEDICAL SCHOOL.—The following appointments have recently been made in this School. Dr. W. L. Reid has been appointed to the Chair of Midwifery in room of Dr. Abraham Wallace, who resigned the office owing

to his removal to London; and Mr. James Robertson Watson, M.A., Clark Scholar of Glasgow University, has been elected to the Chair of Chemistry, in place of Professor Dittmar, F.R.S., who remains at the Technical College.

GLASGOW TRAINING HOME FOR NURSES.—The following gentlemen have been appointed medical officers to this institution—viz., Dr. George A. Turner, Mr. A. E. Maylard, and Mr. William MacLennan. We understand that the appointments are for three years, and that gentlemen are not eligible for re-election until they have been retired for a year.

GLASGOW ROYAL INFIRMARY—CONCERT IN AID OF THE STUDENTS' LIBRARY.—On the evening of the 27th of March, a largely attended concert was held in the Dispensary Hall of the Infirmary. The programme had been arranged by Mr. George A. Clark, one of the residents in the Hospital and an old student of the School, and the efforts of the students and their friends were much appreciated and enjoyed. We are pleased to intimate that a sum of about £7 was raised for the Library, and that several gentlemen sent copies of their recently published works. We wish the students of the Royal School every success in their endeavours to increase their Library, and certainly there could be no more trustworthy indication of vitality in a school than such efforts.

REVIEWS.

Psycho-Therapeutics or Treatment by Sleep and Suggestion.

By C. LLOYD TUCKEY, M.D. London: Baillière, Tindall, & Cox. 1889.

SINCE the days when Friedrich Anton Mesmer, who, by the way, was a medical graduate of Vienna, mystified his patients sitting in solemn silence round the simmering "vaquet," and stroked away their ailments to the strains of soft music, till the present time, Mesmerism, Braidism, Hypnotism or Psycho-Therapeutics, has at intervals not a little exercised the mind of the scientific world, and men of such distinguished ability as Dr. Carpenter, Heidenhain, and Maudesley, have endeavoured and in part succeeded in placing the phenomena of this condition on a physiological basis. But, on the other

hand, mainly no doubt from the wholesome dread implanted in every well-regulated medical mind of being branded as a quack, but partly also on account of the contempt thrown upon hypnotism through its employment in unauthorised medical practice and at public entertainments, but little attention has been given to the subject by practical physicians in this country at least.

It is with the object of remedying this state of matters that Dr. Tuckey has issued the volume now under consideration. The work extends to eighty pages of matter, every page of which contains something of interest. In the first chapter, the effect of imagination on the mind is gone into, and some very curious instances are cited bearing on this point. The effect of fear in predisposing to infectious disease is popularly recognised, and that imagination is accountable for many functional disorders is too well known to require pointing out, but that actual visible organic lesions may be produced by concentrated attention is not so well known. The following instance illustrates this point:—A hypnotised patient is told that he has a burn on a certain part of his body, and not only does he feel pain and burning at the spot indicated, but in many cases this spot becomes red and congested, and sometimes actual inflammation and vesication are produced.

The Nancy School, of which Dr. Tuckey is a disciple, is already well known throughout Europe, and whatever emanates from Dr. Liébault's clinique deserves the most respectful attention. This gentleman's "method" is described as follows:—"The patient paying his first visit is directed to sit down and watch the treatment applied to others. This gives him confidence and arouses that imitative faculty, which is so active in childhood, and is never lost throughout adult life. When his turn comes, he is told to take his place in an arm chair, and to make his mind as much a blank as possible—'to think of nothing at all'—and to fix his eyes and attention on some special object, almost anything will do, from the operator's face or hand to a mark on the ceiling or the pattern of the carpet. Then the phenomena which attend the oncoming of natural sleep are gradually suggested to him; 'your sight is growing dim and indistinct: your eyelids are becoming heavy; a numbness is creeping over your limbs; my voice seems muffled to you; you are getting more sleepy; you cannot keep your eyes open.' Here the eyes close of themselves, or are closed by the operator, and it is generally found that the patient is indeed asleep.

"About two minutes of this 'talk about sleep' will usually produce the hypnotic effect on a new patient, and on subsequent visits even less time is required.

"The patient being more or less influenced, Dr. Liébault now proceeds with the treatment proper. This consists essentially in directing the invalid's attention to the part affected, and suggesting an amelioration or disappearance of the morbid conditions and symptoms."

This procedure is simple enough and does not savour of mysticism, yet the results which are said to follow are wonderful, and in some cases almost miraculous. Numerous illustrative cases are quoted from Dr. Liébault's case-book and elsewhere, but the headings will give an idea of the rapidity of cure, *e.g.*, Case 7.—"Rheumatic pains in the shoulder-joint for three or four months completely cured in two séances." Case 8.—"Articular rheumatism for three months cured by suggestion in two days." Case 12.—"Amenorrhœa; suggestion that the function should reappear on a certain day; successful result." These cases are sufficiently wonderful, yet it is among functional nervous disorders that the psycho-therapeutist revels, and among hysterical men and women the results obtained seem in some cases extraordinary.

The means usually employed are sufficiently simple, yet let no member of "the noble profession" who dispenses his own drugs, despair or for a moment suppose his occupation gone, for dietetics, *drugs*, electricity, and massage are regarded even by the Nancy School as useful adjuncts to the Suggestion Treatment.

The work is of great interest and well written, and Dr. Tuckey shows very little of the spirit of advocacy. The facts are stated, and the reader is allowed to form his own conclusions. Too little is said with regard to the scientific aspect of hypnotism.

Masso-Therapeutics, or Massage as a Mode of Treatment.

By WILLIAM MURRELL, M.D., F.R.C.P., Lecturer on Pharmacology and Therapeutics at the Westminster Hospital.
London: H. K. Lewis. 1889.

THIS book is better reading than *Punch*, and if the writer's object was to amuse his readers, there can be little doubt but that he has fully attained it. It has reached a fourth edition, and if the author's wit should only keep pace with his years, there is no reason why it should not reach its fortieth. Every

page presents something fresh to laugh at, and in a spare hour, when relaxation is needed, one might do worse than beguile the time with *Masso-Therapeutics*. This somewhat ponderous term has been coined by Dr. Murrell to define the object of his work, formerly called *Massage as a Mode of Treatment*, which is to elucidate "the scientific aspect of the subject: massage, that is, simply as a therapeutic agent, and not massage as a means of earning a living, or as a modified form of hotel-keeping." This has been a distinct mistake on the part of the learned author, apart altogether from the inadvisability of altering a book's name, when the matter is regarded from a commercial point of view, for one looks in vain through 230 pages of matter in search of anything that could in the most remote degree lay claim to the distinction of being called "scientific." If the author's object had been to elucidate the comic aspect of his subject, the name might be right enough, but "scientific" does not apply. The most "scientific" chapter is the fifth, on the physiological action of massage, but here, as elsewhere, except in the records of clinical work, the author relates the investigations of others, and modestly keeps in the background. The effort to produce this chapter seems to have told, as what should have been the longest is nearly the shortest chapter in the book. Chapter III contains a short description of the method of performing massage. This is good as far as it goes, but that is not far, and even here some of the directions are loose and obscure—*e. g.*, we are told on page 42 that the simplest mode of performing pétrissage "consists of picking up between the fingers of one hand a muscle, or group of muscles, isolating it, and then allowing it to spring back by its own elasticity, the fingers at the same time kneading it as one would a piece of dough." This procedure seems somewhat difficult to carry out; but perhaps the thumb plays some part in the performance too trivial to mention; or are Dr. Murrell's thumbs all fingers?

But massage is too narrow a subject for the doctor to confine himself to, and now and again he gives his fancy free rein, and the result is always something amusing—*e. g.*, pp. 28-32, record the author's experience at an English health resort, and there read much better than "Due South." He says:—"I went down to dinner, and it was certainly a very solemn function. There were not many people there—not more than six, I think—but they spoke in whispers, and I felt that I did not desire more company. They were respectable, undoubtedly, and looked like undertakers. I ventured to remark to one of them that it had been a fine day, but he

gave me such a stony stare that I saw I had gone too far, and must be more circumspect in future." Considerable difficulty was experienced in getting away from this interesting locality and in stopping the train; but this at last was finally effected "by the simple expedient of standing between the rails and refusing to stir."

We heartily recommend this work to all who desire to be amused, but the scientific aspect of massage remains to be dealt with by some future author.

Clinical Lectures on Important Symptoms. Fasciculus II. On Albuminuria. By THOMAS GRAINGER STEWART, M.D.Ed. Edinburgh: Bell & Bradfute. 1888.

IN our opinion this book is as much a systematic treatise as a clinical volume; it has always seemed to us that true clinical instruction, whether oral or literary, should deal with a patient rather than with a symptom, with individual cases rather than statistical tables. The tendency to systematise our clinical teaching too much, and thus to some extent neglect the importance of careful, accurate, close observation and study of individual cases, is one of the weak points of our present system of hospital teaching. We endeavour to teach clinical medicine as a physiologist would teach physiology in his lecture room. We bring before a large class a patient, and demonstrate him much in the same way as the physiological lecturer would show a recording drum taking a tracing of a frog's heart. The student carries away in his note-book a few remarks on the case, but no practical experience derived from it. The present volume seems to us to be the outcome of such a system, and a very large proportion of the lectures contained in it might quite as well have been delivered in a university class room as in a hospital ward.

With regard to the volume itself, we have to say that it contains an exhaustive and valuable, though quite systematic, discussion of the whole subject of albuminuria, and abounds with statistical tables and accounts of the experimental pathology of renal disease, with which we should hope the ordinary clinical student is seldom troubled outside of the pathology class room or laboratory. The most readable and clinical portions of the book are, we think, the lectures on cirrhosis of the kidney and on waxy disease.

A number of the experiments, examinations, and observations, recorded in the volume, have been made with the

assistance of Drs. Stevens, Gulland, and Boddie. The observations would have been of much greater value and importance had the author been entirely responsible for them all himself. In this connection, we cannot help quoting a remark of the great Louis, whose work on phthisis is now one of the classics of medicine—"I have satisfied myself by comparing my lately collected cases with those collected formerly, of the advantage of not undertaking observation (at least when undertaken with a view to publication) until we have passed very early youth. . . . I am of opinion that for this reason we ought, generally speaking, to place less reliance on cases collected by very young men, and *above all not intrust the task of accumulating facts to them exclusively*. For, besides the objection on the score of age, it is certain that we cannot observe for others with the same zeal, assiduity, and accuracy, that we should for ourselves. And again, if we look to other sciences, do we find those who advance them labouring by proxy? Does the natural philosopher concede to another the task of performing his experiments? Does the chemist confide his analysis to the care of a novice?" These are the opinions of Louis, they are also ours.

Congestive Neurasthenia, or Insomnia and Nerve Depression.

By E. J. WHITTLE, M.D. Lond., F.R.C.S. London: H. K. Lewis. 1889.

THE object of this *brochure* is to bring prominently before the profession a disease or set of symptoms by no means rare, and with which most practitioners are familiar, yet which is often difficult to understand, and often still more difficult to treat. The symptoms are those of nerve derangement, due, in the author's opinion, to cerebral congestion, and consequently to be treated by leeching or venesection.

The most characteristic symptoms of this condition are nerve depression and sleeplessness, both of which vary greatly in degree, and which do not always appear to be in strict ratio. In some cases the sleeplessness may be slight, and in other cases so severe that the patient is unable to rest in bed, and is in some cases impelled to wander about the greater part of the night. The face looks anxious, and the digestive functions are disordered, yet the subjects of this form of disease are generally well nourished, muscular, and wiry, and usually have excellent family and personal histories. The face usually shows signs of congestion, the veins being over-

filled and tense. The arteries pulsate visibly. The head feels light and uncomfortable; and there is melancholy without delusion. This type of disease, of which the above is a brief description, Dr. Whittle calls "Congestive Neurasthenia," and distinguishes it from the better understood "Neurasthenia," in the treatment of which "Weir-Mitchelism" has proved so beneficial in the hands of competent workers. The treatment adopted in such cases is exactly the opposite of that usually prescribed in ordinary anæmic neurasthenia, lowering regimen and medication being indicated, and especially bleeding, which in the writer's hands has given results rarely falling short of his expectations in selected cases, and very often exceeding them. A considerable number of cases are reported showing the efficacy of the treatment. Bleeding has now gone so much out of use that its revival in this class of cases requires grave consideration, but it seems to us that the cases brought forward in support of this treatment are so conclusive, that one is inclined to adopt Dr. Whittle's advice in the first cases.

The condition discussed is of such grave importance that we would urge every practitioner to read Dr. Whittle's book, which must be regarded as a valuable addition to medical literature.

Saint Thomas's Hospital Reports. New Series. Edited by Dr. GULLIVER and Mr. CLUTTON. London: J. & A. Churchill. 1889.

The Middlesex Hospital Reports for the Year 1887. London: H. K. Lewis.

As usual the annual volume of Saint Thomas's Reports contains, in addition to the medical and surgical statistical returns, a number of valuable papers by well known members of the staff. Among these we note the names of F. Le Gros Clark, J. F. Payne, J. S. Bristowe, W. M. Ord, &c. Dr. Bristowe contributes an account of "Four cases of Chronic Ear Disease, followed by Intracranial Complications and Death," which are of great interest in connection with the recent advances that have been made in the surgical treatment of such affections. [For a brief *resumé* of Dr. Bristowe's paper, see our Abstracts on Diseases of the Ear, at the end of the present number.—ED.]

The Middlesex volume is a less pretending one, but contains

a large amount of very valuable statistical information. We would specially call attention to an interesting report on enteric fever with which the volume opens, and we quote the remarks on treatment which have special reference to the value of antifebrin. "As regards the drug itself, the chief objection to it is the depression which too frequently follows its administration. . . . The action of the drug in lowering temperature is more powerful, more rapid, and in some cases more lasting than that of antipyrin; but cases occur from time to time in which it is of no avail. A general remission in the symptoms has accompanied the fall of temperature in some cases, but this is the exception, not the rule, and is not lasting. The drug sometimes causes profuse sweating. Nausea is not infrequent, but actual vomiting is rare. No rash has been observed.

"Antifebrin is without doubt an improvement on antipyrin, but its superiority to cold applications is by no means established.

"It does not in any way cut short the disease; and there is no evidence to show that where it effectually keeps down the temperature, it in any way checks the progress of the intestinal lesions."

These remarks strike us as most forcible, and from our own experience we would be inclined in the main to agree with them.

Reports from the Laboratory of the Royal College of Physicians, Edinburgh. Edited by J. BATTY TUKE, M.D., and G. SIMS WOODHEAD, M.D. Vol. I. Edinburgh and London: Young J. Pentland. 1889.

WE heartily congratulate the Royal College of Physicians of Edinburgh on the appearance of the first volume of transactions of their recently founded laboratory. The handsome way in which the book has been got up, and the excellence of the communications it contains, are well worthy of the high reputation of the medical school from which it issues. We quite agree with the editors, that the contents of the volume go far to justify the establishment of the laboratory, and we would hail with great satisfaction a similar institution in Glasgow. In a series of eleven papers we notice that Dr. Woodhead contributes three, and we also observe a very exhaustive report on a case of absence of the corpus callosum in the human brain by Dr. Alexander Bruce.

The Medical Annual and Practitioner's Index: a work of Reference for Medical Practitioners. 1889 (seventh year).
Bristol: John Wright & Co.

WE have again with great pleasure to recommend to our readers a new issue of this very useful annual. The volume is quite up to any of its predecessors in quality of material, and as an epitome of all the most recent suggestions in the way of treatment will certainly prove most useful. We notice a long and careful article on massage by Dr. Stretch Dowse, and the subject of constipation in infancy and childhood is also very well discussed. A distinct improvement in the present volume is the summary of the articles contained in the annuals of last and previous years. No practitioner will regret placing it on his study table.

Transactions of the Royal Academy of Medicine in Ireland.
Vol. VI. Edited by WILLIAM THOMSON, M.A., F.R.C.S.
Dublin: Fannin & Co. 1889.

THE Academy of Medicine in Ireland is now, by the gracious permission of Her Majesty the Queen, The Royal Academy of Medicine in Ireland. We congratulate the Academy on its honourable title, and hope that under the new stimulus of Royal patronage it may go on to still greater prosperity than in the past. The present volume contains a large number of interesting and important papers.

Transactions of the Association of American Physicians.
Third Session, held at Washington, September 18, 19, and 20, 1888. Vol. III. Philadelphia: Printed for the Association. 1888.

THE present volume contains a very valuable series of contributions to medical literature, embracing in all twenty-five papers, with the discussions on each. The range of subjects is a wide one, and we notice one or two groups of papers on similar themes—viz., a series on typhoid fever, another on diseases of the heart and their relation to chronic interstitial nephritis, and a third on the clinical significance of albumen and tube casts in the urine. The volume constitutes an important work of reference for all scientific physicians, especially for those interested in the diseases we have enumerated.

MEETINGS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

SESSION 1888-89.

MEETING XVI.—8TH MARCH, 1889.

MEDICAL SECTION.

PROFESSOR M'CALL ANDERSON *in the Chair.*

I.—CASE OF SPLENIC LEUKÆMIA.

BY PROFESSOR M'CALL ANDERSON.

The patient, a man aged 32, suffering from splenic leukæmia, was shown. The following is a note of the history. There is nothing remarkable with regard to family history or previous personal history of the patient.

Two years ago, he began to feel rather unable for his ordinary work, his appetite became impaired, and when he did take food, he experienced a feeling of discomfort and distention in the stomach shortly after eating. His employment—that of a hot-presser in a cloth-finishing factory—kept him in close confinement in a hot workshop for many hours at a stretch. Most of his food, which consisted mainly of bread and tea, he carried with him to his work. The stomach symptoms gradually increased in severity, and vomiting, which occurred frequently, was the only thing which gave him relief.

In October last he began to suffer from a sharp, cutting pain in the left side of the abdomen. He soon felt a tumour in this region, which has gradually increased in size and firmness. Some days it is so tender that he cannot button his clothes over it, while at other times it is quite painless. For a fortnight before admission, a new feature in the case has been œdema of the feet and legs after being on his feet any length of time. His bowels have always been costive.

In dealing with the examination of the patient, Dr. Anderson pointed out the marked anæmia of the patient. Specimens of the blood, freshly drawn, were shown under the microscope. The corpuscles had been previously counted. In 1 c.mm. of blood there were 3,880,000 corpuscles—3,240,000 red and 640,000 white cells. The proportion of the red to the white was a little over 5 to 1. The spleen, which was uniformly enlarged, extended as low as the horizontal line of the anterior

superior iliac spines and forwards to about 2 inches to the right of the umbilicus. Two deep notches could easily be made out in the anterior border of the tumour. There was only slight tenderness upon palpation. The liver was enlarged one inch. The urine contained a distinct quantity of albumen. A temperature chart was exhibited to show the daily slight rise of temperature. The highest point reached had been 100.2° . The usual rise was to 99° or 100° about 4 or 6 P.M., while normal or subnormal readings were registered in the mornings.

Dr. Middleton had seen two cases of leukæmia in Dr. Gairdner's wards during the present session. In one case, a man, there was a very large spleen with a very great diminution in the number of the red blood corpuscles. There were 12 red to 1 white, and the amount of hæmoglobin was 32 per cent of the normal. This patient was treated with arsenic, the highest dose borne being 12 minims of the liquor, under which treatment, in the space of rather more than a month, there was some improvement, there being 19 red to 1 white, and the hæmoglobin having risen to 42 per cent. The other case, a woman somewhat over 30, was in the ward only a short time when she died. The anæmia was extreme, and the blood corpuscles were reduced in number to 700,000 per c.mm., there being 1 white to 8 red. There was no enlargement of the spleen to speak of; it was rather a case of lymphatic leukæmia, the glands in the neck being slightly enlarged. There was no tenderness over the bones, such as the sternum and ribs. She died of asthenia. There was no *post-mortem* examination. In both of these cases there was pyrexia.

Dr. Perry said he had seen a great number of these cases. Treatment, he thought, was almost useless as far as cure was concerned, as he had never seen a case which was actually cured. But it was not a very rapidly fatal disease.

II.—CASE OF APHASIA AND RIGHT-SIDED PARALYSIS.

BY DR. ALEX. ROBERTSON.

Dr. Ritchie exhibited for Dr. Alex. Robertson the brain from a patient the subject of aphasia and right-sided paralysis. He also read the following clinical notes of the case:—

E. F., age 48, commercial traveller, was admitted on the 6th of February, complaining of pain in the left side of the head, numbness of right hand and leg, and inability to find the words he wished to use.

The history of the case, as given by patient's wife, was

that for 7 weeks previous to admission he had complained of pains in the left side of the head and of inability to read as well as he previously could. He got much better after three weeks, and tried to resume work, but was seized with a severe pain in the head, became very faint although he did not lose consciousness, and had to return home. On the following day he lost the power of finding the words he wished, using, instead, any words, apparently without discrimination. His wife said that she believed his intelligence to be as good as ever.

Patient had always previously been healthy, but had been a pretty heavy drinker. No history of syphilis could be obtained, nor was there any evidence of it.

The aphasia was the most marked symptom on admission. He used words quite at random, but had a great flow of language, never being at a loss to get words of some sort. The intelligence was distinctly impaired, and this impairment rapidly increased as the disease progressed. Although previously a good penman, he was almost entirely unable to write, and could not read more than three or four consecutive words, although he seemed to see the words quite well. There was distinct though not marked loss of power of right arm and leg and right side of face. This paralysis became rapidly much greater, so that he was unable to stand; and during the last fortnight of life control of bladder and bowels was lost. Sensation seemed to be good on the affected side.

Examination of the eyes by Dr. Fergus revealed a low degree of optic neuritis.

Patient sank rapidly, and died on 5th March. After death patient's wife stated that a short time before the commencement of his illness, he was assaulted and beaten about the head. She could give no accurate information as to the nature of his injuries, but said that she never thought that he was so well after this.

III.—MALOJA AS A HEALTH RESORT FOR CONSUMPTIVES AND OTHERS.

BY PROFESSOR M'CALL ANDERSON. (See page 241.)

Dr. Hugh Thomson said he was rather disappointed with the president's remarks about a hospital for consumptives. He had thrown cold water on a suggestion he (Dr. T.) had made some time ago, that the surplus from the late Exhibition should be used in providing a hospital for consumptives. This hospital would certainly be of very great use, and it was a pity that, in such a city as Glasgow, there was no resort where

these patients could be treated. Their number was certainly very large, far too large for any possibility of sending them away to Switzerland, and many of them were in such an acute condition that even to send them a few miles was a serious thing. But apart from that, consumption was now recognised as an infectious disease, and it had become a necessity to separate the subjects of this disease from the healthy, particularly in the dwellings that the working and poorer classes occupied, where a man and his wife and perhaps two children were all sleeping in an enclosed bed. Those who had had to do with the treatment of the poor were quite convinced that the disease was communicated in this way. He had been long convinced that this was the way in which consumption was spread, and for that reason he thought it would be a great advantage to have a place for such cases. They might also have the hospital arranged to have some of the advantages of such a country as Switzerland. They had high mountains in Scotland, on which the air might not be so dry nor so still as in Switzerland; but yet it was pure air, and these places might be utilised for the erection of such hospitals. On the other hand, if very pure air was wanted, it would be quite a practicable thing in his opinion to convey the air from the top of a mountain down to the hospital, where it could be heated and circulated through the hospital. In this way they would obtain all the advantages of a very high altitude. The air was much better charged with ozone at the top of a mountain than it was at the lower levels. It was, moreover, pure and antiseptic, and free from all prejudicial gases. In Guy's Hospital they had at the present time a high chimney or conduit by which they could draw the air down from the higher levels. In Glasgow such an arrangement might be utilised, such as during the dense fogs, when at a high level they would get air free from fog, and by drawing air from this level, they might have the atmosphere of an hospital as pure as in the country. Of course, these things led to expense. If hospitals were placed in the Highlands, some waterfall might be utilised to provide the motive power in bringing the air down to the wards.

Dr. Perry said a good deal could be said on both sides of the question, but from his own experience, he thought it was very bad policy to have chronic cases of phthisis along with other cases. If cases of phthisis were not in an acute condition no improvement was obtained after a week, and his invariable practice had been to order them to go out. He agreed in part with Professor M'Call Anderson as to the advantages.

of Maloja. The district seemed to him too much exposed, and many would agree better with a more sheltered site.

Dr. Sutherland said that, with regard to the question of the erection of an hospital for consumptive patients, he supposed that *Dr. Anderson's* objection referred to the aggregation of such patients in the wards of an hospital, causing the air there to be charged with the bacillus tuberculosis. If that were the case, there was a real danger at present in hospitals where there were cases of acute galloping consumption or chronic phthisis in the wards. It made it therefore undesirable to have them there, and it showed further that the air of an hospital should be examined as much as the urine of the patient. He could quite agree with *Dr. Anderson* that those patients should be removed to a high altitude in our own country where they would have a better chance of recovery. But this would be an expensive matter, as he found that Glasgow was credited with a higher death-rate from phthisis than any other town. This would mean an enormous amount of money. With regard to *Dr. Hugh Thomson's* novel idea of drawing the air down from a high altitude, its density would be very much altered by such a procedure, and any advantage from its rarefaction would be destroyed.

Dr. Lindsay Steven said that it seemed to him that the whole subject of the climatic treatment of consumption was in a somewhat indefinite and unsatisfactory condition. Recently, both in the course of his reading and in dealing with patients, he had had occasion to think a good deal about it, and the difficulty he had was that we had no very definite data upon which to go. In a sentence in *Dr. Anderson's* paper it was brought out that cases that would do very well at Maloja would do well anywhere else, and it was his feeling that this was the case with all the patients they sent away. The most of the cases heard of as having improved after a residence abroad, would probably, under careful treatment, have done well at home, and it was so far a confession of failure that they had to send so many of their consumptive patients so far from home. He could not help thinking that it was somewhat of a leap in the dark. Patients were sent away under the belief that they would improve; but it might turn out that there was no improvement, and perhaps even the patient might get worse; several cases of this kind had come under his own observation. As regards overcrowding, *Dr. Anderson*, he thought, had done well in bringing that before them this evening. He had had some conversations with a doctor from Denver, in Colorado, who was very strong on the subject of

the evils of overcrowding, and who for one would be inclined to treat consumptives in the same way as our forefathers did lepers. As the result of this overcrowding some parts of the Rocky Mountains were getting poisoned. When reading Dr. Lindsay's *Climatic Treatment of Consumption*, he noted the danger at Davos, where, in consequence of the stillness of the atmosphere, the poison was not wafted out of the district at all, and it was becoming a very serious matter.

Professor McCall Anderson replied. In corroboration of what Dr. Lindsay Steven had been saying, when he (Dr. Anderson) was at Davos some years ago, a doctor there had said to him that he would leave the place and go somewhere else, as he had a horror of overcrowding. He need not say anything about Dr. Thomson's remarks, as he had already given the opposite view sufficiently in his paper, but he would give a little personal experience of his own. He would refer to the last two ward sisters that he had; both most valuable women, and devoted to their work. The first of these two took consumption, and she went home and died. The sister who followed her after a little while also took consumption, and he recommended her to leave the hospital and go to Colorado, and gave her an introduction to a doctor there. She went there, and now she was almost perfectly well. Here, then, was an instance of two women who took consumption, the one went home and died, and the other went to Colorado and recovered. The more they studied the question, the more would they be convinced that the proper treatment was to keep consumptive patients in pure air, and it was better to spend the money in this way than in brick and lime. It was far better to cure two out of every ten patients, than simply to make the ten a little more comfortable during the latter part of their life.

MEETING XVII.—15TH MARCH, 1889.

OBSTETRICAL SECTION.

DR. ALEXANDER MILLER *in the Chair*.

I.—THE OBSTETRICAL AND GYNÆCOLOGICAL PRACTICE OF
THE ROTUNDA HOSPITAL, DUBLIN.

BY DR. HENRY ST. CLAIR GRAY.

Dr. Henry St. Clair Gray read an account of the obstetrical and gynæcological practice of the Rotunda Hospital, Dublin.

Dr. Gilmour said the paper gave him the impression that more is expected from antiseptics than is required. It is a fad of the present day. He had seen very few examples of sepsis, although his antiseptic precautions were almost entirely limited to cleanliness, and the use of a very small quantity of corrosive sublimate in the water. It must be a special difficulty for students to be compelled to go through this complicated process of antiseptics. He always took away the placenta as soon as possible after the birth of the child, if it came away good and well, but if not, he did not wait more than ten minutes. He had not seen any mischief result from this line of procedure. He applied steady external manipulation, and if that did not succeed, he introduced the hand, and brought it away. He thought *Dr. Gray* was to be congratulated upon the occurrence of two cases of extra uterine foetation in his experience of one year. He believed that opening the abdominal walls would be better practice than puncture, even for the purpose of sure diagnosis. As regards the cases of cancer referred to, he had found considerable advantage from the use of Chian turpentine, though he could not say that it had cured any patient. He had no experience of the use of the cautery.

Dr. Stark did not think it possible to criticise the paper, as there was such a mass of material, but he would note that there were about 40 cases of retroflexion all cured. This is a most remarkable fact. He had seen many such cases, but as soon as the pessary was removed, the uterus fell back into its retroflexed condition.

Mr. H. E. Clark said *Dr. Gray's* paper had taught him that the teaching of obstetrics is much more thorough in Dublin than it is in Glasgow, and that the experience to be obtained is much wider than can be got in any other institution in this country. He remembered the time when it was thought to be a bad thing that there should be an association of lying-in-women under the same roof, because there were a great many cases of puerperal disease in these hospitals. He was very much struck with the remark in the report as to abdominal section for hernia; he presumed these were ventral herniæ. There are no cases more risky than these, because there are generally pretty great adhesions. He did not understand what was done to the case of extra uterine pregnancy. A great many cases of extra uterine pregnancy have been diagnosed *post-mortem*.

Dr. Henry St. Clair Gray replied. The treatment by antiseptics was introduced into the Rotunda by the present

Master. Previously, the Hospital was frequently closed on account of epidemics. As regards the birth of the placenta, he thought that when a child had passed through the vagina there was always a danger of infecting the parts unless antiseptics were used. As regards retroflexions, he had seen a good number cured. In Dublin they first put in a large instrument, but remove it say in a month and put in a smaller one, and so on decreasing the size of the instrument; lately, however, they have gone in for *massage* of the sound ligament: this is done from five to eight minutes every day for six weeks.

II.—UTERINE HYDATIDS.

By DR. T. F. GILMOUR, M.D.

Dr. T. F. Gilmour read notes of a case of uterine hydatids.

The Chairman said it was very unusual to meet with such cases. He noted the high percentage of albumen in the urine. He had one at the third month, but no dropsy or albuminous urine.

MEETING XVIII.—22ND MARCH, 1889.

SURGICAL SECTION.

DR. D. N. KNOX, *Vice-President, in the Chair.*

I.—EXCISION OF THE ANKLE-JOINT FOR PULPY DISEASE OF THE SYNOVIAL MEMBRANE.

By MR. A. E. MAYLARD, M.B., M.S.

Mr. Maylard said the patient he wished to show was a boy who came into the Western Infirmary about two years ago with tubercular disease of the ankle-joint. There was marked swelling on both sides and also some in front. On the inner side of the ankle it was painful on pressure and fluctuant. Movement at the ankle-joint caused pain. The history was that he had some weeks before got a sprain, and that his ankle since had gradually been getting worse. His general health was good; there was nothing strumous about him. He operated by means of semicircular incisions on each side of the joint, and after separating the tendons from the parts in front, and as well as possible behind and at the sides, inserted a Butcher's saw and removed the lower end of the tibia and fibula, and the upper end of the astragalus. The pulpy synovial membrane was removed, as also a little diseased portion of bone.

He then passed a silver wire from side to side through the tibia and astragalus, the two ends of the wire on each side being twisted together so as to approximate the raw surface of the bones. It was then put up in the usual way. The wound progressed very well and he had no trouble with it. He left the hospital six weeks after the operation, but before going the wires were removed. Unfortunately he got a kick on his foot and this started the mischief afresh, and he had to give the bone another scrape. He brought this case before the Society simply to show the successful result that may follow excision of the ankle joint. Of all joints of the body this is one of the last upon which we should attempt excision. He might also say further, that with the experience he has had with children since then, he did not believe he would do this operation now. He had put them up stiff with strapping and Scott's ointment, and had had very good results from this treatment. He had another case of same kind in a lad aged 19. It was one of considerable interest to him, as it was seen by a well known German surgeon, who recommended excision of the joint. In this case he tapped the joint and drew out the pus, injecting iodoform and glycerine. This injection, however, seemed to flow out again as soon as it was put in. He then dressed with Scott's ointment and put it up stiff. The patient has done nothing but improve since then, and seems to be recovering rapidly. He did not believe that a Syme's amputation would have produced such a good result as in this case. Further, he did not think that any case of excision should be brought before a Society before two years at least had elapsed.

Dr. Knox said it was especially gratifying to see a case of this kind so successful two years after the operation. He quite agreed with Mr. Maylard's views as regards the general treatment of these cases, having had a very considerable number of such cases that had recovered after the application of Scott's ointment and a stiff bandage kept on for a considerable time. There were cases, however, in which this treatment will fail, and a surgeon is put in an awkward position to decide as to whether the foot should come off or not. He had a case which was too far advanced for this treatment, and he would have amputated, but the parents would not allow it. He temporised by scraping the astragalus. He did not think that all the cases of synovial degeneration are really tubercular; it has been proved that they are tubercular in many cases, but not in all. He had examined a good many of them without finding tubercle.

Dr. Hugh Thomson said that when the operation of excision of joints was introduced, he saw a case which Syme exhibited in which he had excised the elbow joint. The result was very good; there was shortening of the arm to a considerable extent, but the boy had very free motion of the arm, but altogether a very fair arm. The case before us to-night is also a very good result as compared with amputation of the foot. It is always a serious thing to take away the foot, and he is very glad that Mr. Maylard has been so successful after two years. Even if there was no movement at the joint at all, it would still be better than an artificial foot.

Dr. W. J. Fleming said he thought if you got good patients, you may expect such results, and this case encourages one to try.

Dr. Barlow said that with regard to the treatment of these joint affections, he would urge the expectant treatment: the absolute fixation of the joint with or without Scott's dressing. The tendency now in the South is to excise the joint, and the earlier it is done the better the result. You will meet with cases in which the disease is limited to the ankle joint, and if fixation fails, then excision is the operation to be performed rather than Syme's amputation.

Dr. Rutherford said that Dr. Barlow, when referring to excisions, indicated that they were being done much more freely elsewhere, but he (Dr. Rutherford) thought this was true only so far. By free gouging out of the infected parts good results have been obtained. Considering also that cases of excision in the adult, and performed for injury have given very good results, as has been recorded by Langenbeck, and with free movement of the joint, he would prefer the operation of excision, considering the number of contingencies that militate against the success of treatment by fixation in the early stages, as it is such a long and uncertain operation.

Dr. Dalziel said there was nothing more apt to cause a return of the disease than friction between two bony surfaces. In very few cases of pulpy degeneration do you find the bones quite free from disease. Another point is, as Mr. Maylard has said, which encouraged him to operate, was the state of the boy's health, a point upon which too little attention has been paid by many surgeons: they see a case of joint disease, and they excise without any reference to the constitution or general health of the patient.

Mr. Maylard replied. He said the movement in his case was at the medio-tarsal joint: there was ankylosis between

the astragalus and tibia. His own opinion regarding the operation is that any condition that is favourable for excision is also favourable for conservative surgery.

II.—EXCISION OF CONDYLE OF JAW FOR ANCHYLOSIS.

BY DR. S. G. CAMPBELL.

Dr. S. G. Campbell exhibited a patient on whom excision of condyle of jaw had been performed for ankylosis.

Dr. W. J. Fleming said that when he was House Surgeon, he had a similar case. He had only a vague remembrance of the case. His teeth were quite shut, and could not be prized open. The same operation was performed as in this case, and the result was very much the same.

Mr. H. E. Clark said he had seen the case before, and there is no doubt a greater degree of movement since he had seen it at first. It is unfortunate that the facial paralysis is so considerable. He did not remember as to whether the man was so unable to close his eye as he is at present. When present at the operation, as far as he could make out, the condyle was not removed; there was a general chiselling.

III.—TREATMENT OF DISEASE OF THE SPINAL COLUMN.

BY DR. WM. J. FLEMING.

Dr. Wm. J. Fleming read a paper upon the treatment of disease of the spinal column, of which the following is an abstract.

Regarding angular and lateral curvature of the spine, the deformity was in both the result of a yielding to pressure—in the one case of the osseous, in the other of ligamentous tissue, this condition being preceded by softening, generally due to local malnutrition. Hence, in treatment, we must remove the pressure, the first and most important step, and improve the nutrition of the parts.

Dr. Fleming then referred to the inflating india-rubber collar, devised by him in 1883, for disease of the spine in the cervical region, and mentioned as disadvantages its cost and the necessity for frequent repair and renewal. Since November, 1886, Dr. Fleming has employed elastic extension, applying a weight to the centre posteriorly of a pelvic girdle, and making counter extension by means of an elastic band passing from the head girdle. The head girdle employed first was similar to that used by Sayré in suspension, but this was uncomfortable. As at present made it consists of two straps, one of

leather, extending from a point just above and in front of the ear, round the back of the head below the occipital protuberance to a corresponding point on the other side, and another of webbing, with a buckle fixed to the ends of the posterior strap at such an angle as will permit it to pass straight across the brow just above the orbital prominences. Another strap extends loosely in the form of a loop from about the point of junction of the other two, and from the centre of this the extension by an elastic cord is made. The elastic cord is attached to the top of the bed, so as to be at the level of the centre of the patient's head when on a low pillow. For the idea embodied in the headpiece he was indebted to Mr. Parry, late house surgeon at the Children's Hospital. A weight varying from 6 lbs. for a child, to 12 lbs. for an adult, is attached, a cord and pulley intervening, by means of calico to the pelvic girdle. By this means continuous elastic extension of the spinal column is maintained without interfering with the free use of the limbs, while shampooing and electricity may be applied, if necessary, to the affected regions. All true cases of Pott's disease, in which ankylosis is not already firmly established, would, he thought, be benefited by this treatment, while it is suitable in many cases of lateral and lateral rotatory curves. In the latter, extension might be employed for a fortnight continuously, but afterwards gymnastics, massage, &c., in the daytime, and extension during sleep. In cases of caries he advocates, after extension, a poroplastic jacket to be worn in the daytime and extension at night for months. For diseases of the upper cervical region, Hilliard's artificial spine is admirable.

Dr. Fleming showed four patients who had been treated by this method of elastic extension.

Dr. Knox said he had tried this treatment in about half a dozen cases, both in hospital and private practice, and on the whole was satisfied with the result. The principle we may all accept. One difficulty he found was with regard to the pelvic belt. In young children who have no waist, it is exceedingly difficult to get a belt that will stick; nearly every belt that Hilliard had made for him had slipped off. He was exceedingly well pleased with the headpiece; if it is Dr. Parry's invention, he is to be congratulated upon that point, because it is a decided success. The extension has to be very carefully graduated as regards weights; one little child that he had under his care in private could stand 5 lbs. weight quite comfortably all day and night, but was completely upset with 6 lbs. This experiment was tried over and over again, but had to be given

up as patient got restive and sleepless. However, he believed that each child must be decided in that way for itself. As regards the artificial spine, it is obviously an apparatus which does not help the extension much. He had employed it in the hospital, and at present he had three cases there under treatment, and one waiting for the apparatus.

Dr. Dalziel would only like to say that in regard to the application of this apparatus to Potts' and lateral curvatures, some differentiation must be made. In Potts' curvature, the advantage obtained by the use of the apparatus shown by *Dr. Fleming* must be a moral one. If you can obtain for these patients perfect rest you will get good results. In lateral curvature he (*Dr. Dalziel*) did not think it could have any advantage over the bandage devised by other people. Such patients should be benefited if kept at rest twenty hours out of the twenty-four, the remaining four being spent in active exercise. In Potts' curvature he would deprecate its use, and would prefer nothing better than a plaster bandage.

Dr. Parry intimated his intention of reading a paper on the same subject, and of showing how similar results can be obtained by a different method. Further discussion was therefore adjourned.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

SESSION 1888-89.

MEETING VI.—MONDAY, 11TH MARCH, 1889.

The Vice-President, DR. DAVID NEWMAN, in the Chair.

I.—CASE OF CYSTIC DISEASE OF THE KIDNEY DIAGNOSED DURING LIFE.

BY DAVID NEWMAN, M.D. (See page 255.)

II.—CASE OF RECENT DISLOCATION AT THE HIP.

BY MR. HENRY RUTHERFURD.

The patient was a big-boned, strongly made man, 66 years of age, who had been knocked down on the railway by an engine which struck him from behind. He died of his other injuries within 48 hours of his admission to hospital, reduction

having been easily effected under chloroform by Professor Buchanan.

Dissection of the right hip joint shows the condition of parts to be as follows :—There is a rent in the capsule, extending through the whole of its posterior half, beginning close to the posterior edge of the cotyloid ligament at the level of the upper margin of the ischial spine, it runs downwards and outwards for about an inch, then forwards, upwards, and outwards along the digital fossa, terminating at the superior (trochanteric) limb of the ilio-femoral ligament, which is intact. The round ligament is torn close to the head of the femur, and some of its fibres seem to have been torn out from their insertion, carrying with them portions of the adjoining cartilage. A splinter, nearly half an inch in diameter, has been separated from the head of the femur, from the inferior margin of its articular margin, and slightly posterior to its median plane. Slight, but palpable, crushing of the bony margin of the acetabulum is found at a point opposite the root of the ischial spine—the os innominatum being in the vertical position, that is, with the anterior superior spine of the ilium and the spine of the pubis in the same vertical plane. The pyriformis, the obturator internus, and the gemelli were all found torn across, the tear in the obturator being within the pelvis close to its origin, but involving tendinous bands of considerable thickness. Effusion of blood was found on the dorsum ilii, extending above the level of the great sacro-sciatic notch, but even in the dissected specimen, the head of the femur could not be made to travel into the notch, nor as high as its upper border.

From these conditions, it would seem probable that the dislocation took place almost directly backwards, that is to say, horizontally (*v. supra*). The deformity cannot be reproduced in the position of extreme extension, the head of the femur being firmly held in its socket by the tense upper and anterior fibres of the capsule, but a very slight amount of flexion (though not more than 25° or 30°) is sufficient to allow the movement to be initiated when the femur is inverted. Passing over the element of adduction which is, in any case, probably least in importance of the three—flexion, adduction, and inward rotation—which it is agreed commonly contribute to the production of backward dislocation, it is evident that in this case by far the most important part has been played by inward rotation of the femur. The rather unusual nature of the injury to the obturator internus seems also in accord with this theory, whether the rupture be supposed to have occurred

from over stretching in extreme inversion of the limb prior to the actual dislocation, or when the stretching was intensified as the head started outwards on the rim of the acetabulum.

III.—SPECIMENS FROM A CASE OF PURULENT MENINGITIS IN THE POSTERIOR FOSSA OF THE SKULL, DUE TO EAR DISEASE.

By JAMES FINLAYSON, M.D., AND THOMAS BARR, M.D.

Dr. Finlayson said the patient was a man 22 years of age, a draper by occupation, who was admitted to the Glasgow Western Infirmary on 18th December, 1888. He had been subject to a foetid discharge from the right ear since he had measles, when 4 years old, and for a long time he had been in the habit of picking his ear with pins. Five weeks before admission, after picking his ear, it became unusually painful, and a considerable discharge of blood and matter occurred at this time. The lining of the canal also became so much swollen that the ear could not be examined at that time. The pain extended from the right ear to the occipital region. He was seen at that time by Dr. A. D. Stewart, who treated the ear affection. He seems to have found him markedly feverish; according to the patient, the temperature was 102° F. During the first two weeks of his confinement to bed at this time he was very giddy; but, improving in the third week, he was able to get up, and even to go out, in the fourth week. In a few days, however, he became worse, with pains in the jaw and behind his right ear. He thought these pains were aggravated on eating. This was on 10th December. By the 12th the pains on the right side of the face were much worse, but these ceased on the 13th, although the pains in the head itself then became more severe. He began to vomit on the 14th, and this continued till the 16th December. He was said by his sister to have had a bad shivering on the 14th. He was admitted on the 18th to the Western Infirmary.

On admission he complained much of pain in the head, both in the frontal and the occipital region, and also of pain in the back, especially in the sacral region, and this portion of the spine was very tender on pressure. His head was much retracted, so that he lay with difficulty on his back, and when he did so his eyes nearly looked to the wall at the head of his bed. The pain in the back prevented him from sitting up in bed; it was found that he could turn round on to his elbow, and even towards his face. In these movements his back seemed to move as a whole. He could, however, sit on the edge of the bed. While seated thus, the knee-jerk was found

to be almost or entirely absent. He was found to be able to stand, and walk a step or two with assistance. His temperature was high (102° to 103° F.); pulse about 90; respirations, 36. Tongue furred and dry. Intelligence very good, his answers being clear and precise.

On admission, Dr. Finlayson said, the patient presented most of the typical symptoms of cerebro-spinal meningitis, but there were no eruptions or blotches of any kind on the skin. The presence of a chronic ear disease on the side affected with the severe pains, and the clear history of a recent exacerbation of the aural condition, made it almost certain that the acute illness was connected with these facts. Moreover, a slight but perfectly distinct paralysis of the facial nerve on the right side, apparently of 5 weeks' duration, pointed in the same direction. This affection of the face was the only distinct paralysis detected. Dr. Barr's examination of the ear showed that the bone conduction was better on the affected side, and that some polypoid excrescences existed in the right meatus (which he removed subsequently), but there were no evidences of mastoid irritation. The left ear was practically normal. On examination of the eyes by Dr. Reid, there were signs of papillitis of a mild type in the left; the right seemed normal, but could not be examined thoroughly. Nothing special was found on examining the chest or abdomen.

After admission, the patient continued feverish (102° to 103° F.), and in two or three days it was found that although his headache was apparently less severe, the intelligence was much obscured, although he could sometimes answer sensibly. At times he had marked shaking of the jaw, and also of the right hand while trying to take a drink, but no general rigors occurred. The pupils remained equal, and were found to contract readily to light. The retraction of the head varied, but was distinctly less after the patient became more stupid. The abdomen was not retracted; the so-called *tache cérébrale* was well marked. The catheter had only to be used once, viz., on the day he died; the bowels required medicines and enemata. The urine contained no albumen, but a very distinct reaction of sugar was obtained,—a quantitative analysis showing, in the specimen examined, 0.25 per cent of sugar. The confusion of mind deepened into a stupor before death, and the day he died he vomited once, for the first time since admission; hiccup and general tremulousness preceded the terminal coma. The temperature reached 104.2° F. three hours before death. He died on 24th December, about a week

after admission, and six weeks after the first onset of the acute symptoms.

In discussing the diagnosis, Dr. Finlayson said that the connection of the meningeal symptoms with the ear disease seemed perfectly plain, although even with this in view the idea of a cerebro-spinal affection was strongly suggested, not only by the extreme retraction of the head, but also by the pain and stiffness of the back. The idea of a cerebellar abscess was likewise discussed, as abscess in this situation occasionally follows upon ear disease, and marked retraction of the head has been observed in such cases. In considering the question of abscess, attention was directed to the region of the jugular veins to ascertain if there were any tenderness there suggestive of thrombosis or inflammation in the region of the lateral sinus, but no such tenderness existed there or behind the insertion of the sterno-mastoid. After an anxious consideration of the case in view of any possible surgical interference, the only definite conclusion open seemed to be that formulated by Dr. Barr, that the symptoms pointed to "purulent disease in the posterior fossa," but whether meningeal inflammation of this type or cerebellar abscess seemed doubtful. The symptoms in most respects strongly suggested meningitis; on the other hand, the two periods in the acute illness, separated by a week's interval, during part of which the patient could go about, seemed more like the course of an abscess; and the occurrence of a rigor, a few days before admission, with the beginning of the second period of illness, rather pointed in the same direction.

The *post-mortem* examination showed the case to be one of purulent meningitis, apparently occurring in two attacks; unfortunately an examination of the head only was permitted, and so the state of the spinal cord could not be ascertained; a portion of it, cut out as far below the foramen magnum as possible, seemed to show an absence of deposits in the membranes there.

There was no thrombosis in the longitudinal sinus, and none in the lateral sinus. The vessels of the pia mater, and especially the veins, were much engorged all over. On the convexity, at the right side, at the edge of the longitudinal fissure, at the upper part of the frontal convolutions, a little purulent exudation was found, and a similar, but slighter deposit, was found on the left side at the posterior part of the frontal convolutions. On removing the brain a considerable amount of fluid was found at the base, and this presented a purulent admixture in the region of the medulla. The brain was found to be

adherent near the right internal auditory meatus, and it had to be dissected off the membranes and bone; there was at this spot a piece of necrosed tissue, partly brain substance and partly membrane. This portion was found to be the very anterior extremity of the right lobe of the cerebellum; this destructive process had extended slightly to the side of the pons at its posterior part. The base of the brain presented extensive purulent inflammation. This process seemed to have extended from the spot where the pus oozed out, on dissecting off the adhesion, towards the side of the medulla and to the inferior surface of the cerebellum, crossing over to the left side also; the purulent deposit extended, about an inch, both to the right and left of the middle of the cerebellum, behind the medulla. On the right side of the cerebellum, in this situation, a distinct membrane could be stripped off, leaving inflammatory products still visible on the pia mater; in this membrane, as stripped off, injected vessels could be seen. On dissecting up the medulla oblongata so as to expose the fourth ventricle, some gelatino-purulent exudation was found in both the anterior and posterior aspects of it. Considerable inflammatory exudation existed at the optic chiasma. There was no very marked inflammatory deposit on the surface of the temporo-sphenoidal lobes. The cerebellum was not adherent to the cerebrum above. Some adhesion of the anterior lobes to each other was present, with distinct exudation on the inner surface of the right lobe. The fissures of Sylvius were likewise somewhat adherent. The ventricles were moderately distended. No lesions were found in the brain substance, except the destruction of the small portion of the cerebellum and adjacent part of the pons already described.

The pus which oozed from the internal auditory meatus was very foetid, and there was obvious disease of the petrous bone; this was removed for further examination by Dr. Barr.

DR. BARR said that the temporal bone in this case illustrated a rare, though not unknown, mode by which purulent disease of the middle ear may extend to the intra-cranial cavity, namely, by the labyrinthine cavities and Fallopian canal to the internal auditory meatus.

The most frequent directions by which disease of the middle ear invades the interior of the cranium are—(1) Through the roof of the middle ear to the middle fossa (temporo-sphenoidal lobe), and (2) through the inner wall of the mastoid cells to the posterior fossa (the lateral sinus and cerebellum). The bony partitions, however, in these situations were intact, but

the inner or labyrinthine wall of the tympanic cavity and the osseous cavity of the facial nerve as well as the cribriform plate, were broken through by caries.

On removing the anterior wall of the external canal of the ear, the greater part of the membrane was seen to be destroyed, only a rim of 2 mm. in breadth remaining at the lower part. A mass of granulation tissue protruded from the cavity of the tympanum, especially at the upper and back part. On separating the temporal bone into two parts through the Eustachian tube, tympanic cavity, and mastoid cells, this granulation tissue was seen to spring partly from the antrum mastoideum, but chiefly from the inner wall of the tympanic cavity, especially above and behind. On carefully removing the granulation tissue, Dr. Barr found embedded in it the stapes, quite detached from its fenestra, and the facial nerve quite denuded of its bony casing. At that part, therefore, where the Fallopian canal courses behind and above the fenestra ovalis, the bony casing of the canal had been completely destroyed, and the nerve lay quite exposed in the cavity of the tympanum. The malleus, partially destroyed by caries, was also embedded in granulation tissue, and lay in contact with the outer wall of the upper tympanic cavity. The incus was absent. The mastoid cells, with the exception of the antrum, were obliterated, and converted into hard, dense bone. The antrum was, however, dilated, forming a cavity of much larger dimensions than in health, lined by thickened mucous membrane, and filled with decomposing, caseous-looking pus. Only a very thin plate of bone separated this cavity from the middle fossa of the cranium above.

The inner or labyrinthine wall of the tympanum showed the most striking changes. Irregular carious openings were found to communicate with the interior of the external semicircular canal, the vestibule, and the cochlea. The fenestra ovalis was much enlarged by carious erosion; the fenestra rotunda was, however, closed by hyperostosis. On reflecting light into these gaps, a dark aperture was seen at the fore part of the inner wall of the vestibule; this was the situation of the fossa hemispherica which, instead of being a perforated lamina, through which, in the normal condition, the fibres of the vestibular division of the auditory nerve penetrate the vestibular wall, was a simple hole, enlarged by carious erosion—the nerve much thickened ended here. At the lower and fore part was seen the entrance to the scala vestibuli of the cochlea, while at the posterior part were seen two openings, the mouths of semicircular canals.

On removing the roof of the internal auditory canal, the auditory nerve, inseparably united to the facial, was exposed, forming a thick reddish mass. The cribriform lamina was eroded and destroyed by caries, so that no hindrance existed to the passage of purulent matter to the internal auditory meatus.

The facial nerve was seen in its winding from the internal auditory canal to the stylo-mastoid foramen. The first part of its course (the horizontal part) as it passes outwards to the geniculate ganglion was artificially opened, and the nerve was seen to be red, enlarged, and somewhat softened. In the second part of its course, where it abruptly turns backwards almost at right angles to the first part, and curves round the fenestra ovalis, it was quite denuded of its bony casing, and of a reddish colour. This part of the nerve was embedded in granulation tissue. The third or vertical part, which was, in great part, opened into by the chisel, was normal in appearance. On the upper surface of the petrous bone, a very small carious aperture was found communicating with the interior of the cochlea. There was no evidence, however, of its having participated in the extension of the disease to the brain. Over the superior semicircular canal, the bone was slightly discoloured, rather soft, and friable. This was easily picked off with forceps, exposing the white, dense, bony capsule of the canal partially opened into.

IV.—SPECIMEN OF MISPLACED KIDNEY.

BY DR. J. H. CARSLAW.

The specimen of misplaced kidney now presented to this Society was obtained from the body of a boy aged 8 years, who was admitted to Belvidere Hospital on 23rd January, suffering from scarlet fever. He died on 1st February. During his residence in hospital, the presence of an abnormal rounded body in the lower abdomen was more than once casually observed, but its significance misinterpreted: the patient's critical condition made exposure for exact investigation impossible.

At the *post-mortem* examination made upon 3rd February the following were among the facts noted:—

The kidneys are both highly congested. The left occupies an abnormal situation, lying on the 4th and 5th lumbar vertebral bodies and the adjacent part of the left psoas muscle, and thus concealing in part the iliac vessels. Covering it there is a layer of peritoneum, and around it lies some fatty tissue.

Its greatest diameter lies transversely or rather slightly obliquely from above downwards, and from right to left, measuring 3 inches. The diameter at right angles to this measures $2\frac{1}{2}$ inches. The kidney is divided into two lobes by a fissure running on the anterior surface almost vertically, but with a slight concavity towards the right; the extremities of the fissure pass round to the posterior aspect of the organ but do not quite meet, leaving an inch where the two lobes are continuous behind. The right or smaller lobe has, as seen from before, a circular form with a diameter of an inch and a half; the left lobe is crescentic and appears to embrace its fellow.

Thickness of right = $\frac{3}{4}$ inch, of left = 1 inch. On the anterior aspect near the lower margin of the kidney, the fissure mentioned above broadens out to form a hilus in which are found the ureter and vessels. The ureter is double as it emerges, one branch coming from each lobe; after division of the kidney, however, the pelvis is found to be single and common to the two lobes. The branches of the ureter unite while still in the hilus, being under half an inch each in length. The ureter itself is much shorter than the right, 5 and 8 inches are the respective measurements after removal; about the middle of the left ureter (as it lies against the wall of the true pelvis) there is a dilatation.

Two arteries supply the left kidney. (1.) One arises from the aorta within half an inch of the bifurcation; after giving a long branch to the posterior aspect of the kidney, it crosses the kidney from above downwards, lying in the fissure separating the lobes and supplying branches to both lobes; it terminates in the larger lobe at about the point of origin of its branch of ureter. (2.) The second artery arises from the right common iliac, and passes behind the lower margin of the smaller or circular lobe, to divide in the hilus into branches supplying both lobes.

Corresponding to each artery is a vein; one of these is inserted $\frac{1}{4}$ in. above the point of union of the common iliacs, the other just at the point of union. The left spermatic vein is traced upwards behind the kidney to a vein passing from the suprarenal capsule into the vena cava. The capsule is of normal appearance, and occupies its normal situation. So does the right kidney, which is further of normal size and shape: it has an extra renal artery, entering the hilus *behind* the ureter.

Nothing abnormal is noticed in the descending colon, sigmoid flexure, or rectum. The transverse colon, however, is exceed-

ingly closely bound down by mesocolon, being separated by only about $1\frac{1}{2}$ inches from the pancreas. The vermiform appendix is of unusual length, measuring 5 inches; otherwise its appearance is normal; a probe passes into it in its whole extent.

On consulting the literature of the subject, it is found that such abnormalities as the present are shortly referred to in the text-books upon anatomy and pathology, and are distinguished along with other conditions such as the "Horse shoe" kidney from cases in which the kidney is displaced after birth, and from cases in which the kidney is mobile. Mr. Arthur Denham, in an article on "Misplacement and Mobility of the Kidneys," in *Guy's Hospital Reports*, 1860, discusses the matter very fully, and quotes from Cruveilhier and Velpeau, showing that they had recognised congenital misplacements of the kidney low in the abdominal cavity, or even in the pelvis. He mentions in detail four cases to which that now before you bears very close resemblance; in one of them the tumour was felt during life, and treatment was adopted with a view to its removal by counter irritation, &c. "Fixed misplacement of the kidney," he says, "is usually congenital, as is indicated among other considerations by the corresponding irregularities presented by the renal vessels." "The left kidney" he found "more liable to fixed misplacement than the right," and its misplacement to be "usually associated with malposition of the colon," the suprarenal capsule, however, occupying its normal position.

Denham and Dickinson (in his work on *Renal and Urinary Affections*) both quote a case referred to by Rayer (*Traité des Maladies des Reins*) in which labour was impeded by a misplaced kidney.

A number of other cases are cited by Hare in a paper on "Movable Kidneys: their Diagnosis and Treatment," in the *Medical Times and Gazette* for 1858.

Dickinson suggests as an explanation of the low situation of the kidney, in the cases where the misplacement is congenital, the fact that the development of the renal structures commences in front of the bifurcation of the aorta, the organ being simply retained in or near its original situation.

V.—ROUND-CELLED SARCOMA OF THE EYELID.

BY DR. RENTON.

Dr. Renton showed the eye of a child, æt. $3\frac{1}{2}$ years, which was removed owing to a gliomatous-looking tumour which had

appeared five months previous to the operation in November, 1888. The tumour had been removed by Dr. Ramsay, who found that it was round-celled sarcoma growing from the ciliary region. A full report will appear in a future number.

VI.—MICROSCOPIC SPECIMENS OF A POLYPUS OF THE
RECTUM FROM A CHILD.

BY JOHN LINDSAY STEVEN, M.D.

The specimen was obtained from a boy, aged about 7 years, who was a patient at the Sick Children's Dispensary. He had suffered from discharges of blood for two or three years, and for a month or two before he was seen by Dr. Steven, his mother stated that something had come down from the rectum each time the bowels were moved. On examination of the rectum with the forefinger a little pedunculated tumour was discovered. By straining, the tumour was made to project from the anus, and Dr. Steven called in his surgical colleague, Dr. Quintin M'Lennan, who placed a ligature round the pedicle, and removed the tumour. The case did well, and the melæna ceased.

In structure the polypus was found to consist of numerous glandular saccules and ducts lined with columnar epithelium cells, the glandular elements being embedded in a ground tissue composed of large round cells. In the epithelium were many goblet cells, and the glandular spaces were filled with a transparent mucoid material.

EXTRA MEETING IV.—25TH MARCH, 1889.

The President, PROFESSOR W. T. GAIRDNER, M.D., *in the Chair*.

EXHIBITION OF SPECIMENS ILLUSTRATIVE OF HEALING
AND HEALED LESIONS, WITH SPECIAL REFERENCE TO
SURGICAL AFFECTIONS.

EXHIBITORS.

Professor Sir George H. B. Macleod, Professor George Buchanan, Professor John Young (specimens from Hunterian Museum), Mr. H. E. Clark, Dr. David Newman, Dr. James A. Adams, Mr. A. E. Maylard, and Mr. Henry Rutherford.

GROUP I.

Fractures.

1. Compound fracture of the tibia, three weeks after fracture. The fracture is an oblique one in the middle third of the tibia. The fragments are not in good position, but they are moderately firmly united to one another by callus.

2. Fracture of humerus, with displacement. Complete osseous union in abnormal position.

3. Old depressed fracture of the skull.

4. Old fracture of patella. When removed, the two fragments were so intimately united together that the union was considered to be osseous; maceration, however, showed that it was only fibrous.

5. Old fracture of pelvis. The injury which caused fracture had occurred eight years before. The traumatic stricture of the urethra resulting subsequently led to the death of the patient from "surgical kidney." The fracture of the right side has involved mostly the ramus of the ischium, with only slight displacement of the part. On the left side the fractured ramus is much displaced, and the line of fracture has extended through the neighbourhood of the sacro-iliac synchondrosis. The whole left innominate bone appears to have been displaced.

6. Nine specimens of united extra-capsular fracture of the neck of the femur. (Sir George Macleod.)

7. A united intra-capsular fracture of the neck of the femur. (Sir George Macleod.)

8. A united "mixed" fracture of the neck of the femur. (Sir George Macleod.)

9. Extensive extra-capsular fracture of the femur. (Hunterian Museum.)

10. Old depressed fracture of left parietal bone; good repair though deformity persists. Some ulceration, and at one point perforation, has taken place at the margin on the inside. (Professor George Buchanan.)

11. Fragment of a calvarium, to show a limited circumscribed fracture. The fractured inner table is of a somewhat larger area than the outer. Union is not complete. (Professor George Buchanan.)

12. Part of a calvarium showing circumscribed fracture. The edges are smooth on the outside, leading down to depression and perforation. The inner table is broken in three unequal parts, between which is new bone, evidencing an attempt to fill up the perforation. (Prof. George Buchanan.)

13. Humerus showing oblique fracture through the middle: good union, with little deformity. (Prof. George Buchanan.)

14. Fracture of humerus in its lower half. Separation and subsequent union of a splinter on the inner side. Good union and little deformity. (Professor George Buchanan.)

15. Humerus—fracture in the middle. Firm union, with great deformity, partly due to malposition of the fragments and deposition of new bone. New bone is coarsely porous and undermined. Cloacæ probably due to necrosis of shaft. (Professor George Buchanan.)

16. Two forearm bones fractured near the middle.

17. Upper part of a right femur, to show impacted fracture of the neck, also oblique fracture of the shaft below the trochanters. (Professor George Buchanan.)

18. Fracture of the upper third of the shaft of a femur, and union at an angle. (Professor George Buchanan.)

19. Tibia: oblique fracture in the upper third. (Professor George Buchanan.)

20. Tibia: fractured in the lower half. (Professor George Buchanan.)

21. Fibula: fracture in the lower fourth. (Professor George Buchanan.)

22. Fibula: fracture in the lower fourth, with riding of the fragments, to the extent of 1 inch. (Professor George Buchanan.)

23. Lower half of a femur, showing fracture above the condyles, obliquely impacted and firmly united. The lower fragment exhibits superficial ulceration. (Professor George Buchanan.)

24. Lower half of a femur, showing multiple fracture. Remarkable deformity and firm union. (Professor George Buchanan.)

25. Fracture of the olecranon, where the capsule is worn through and the tendon of the biceps is also gone. (Dr. James A. Adams.)

GROUP II.

Diseases of Bones and Joints.

1. Disease of the body of the sixth dorsal vertebræ, with repair, the body of the sixth dorsal vertebræ being almost entirely destroyed, which causes an acute antero-posterior curvature of the spine, the angle formed between the upper portion of the spine and the lower being a little greater than that of a right angle.

2. Caries of the spine. At the region of most acute curvature there is seen ankylosis of the spines and articular processes.

3. Caries of spine (wet preparation). New-formed bone is seen filling up the spaces which had been originally attacked and removed by disease.

4. Portion of upper dorsal spine, showing how curvature has been prevented in disease of the vertebral bodies. The four upper dorsal bodies are ankylosed, and the second rib, on the right side, is ankylosed to the vertebræ. Between the second and third bodies is a cavity containing a sequestrum, and on each side of this there are strong columns of new bone, which have effectually prevented curvature. The specimen was obtained from the dissecting room, but inquiries as to the history of the patient showed that no suspicion of spinal disease was entertained in the several months prior to his death, when he was an inmate of the Town's Hospital. (Mr. Henry E. Clark.)

5. Lateral curvature of the spine. In the most curved regions of the spine, it will be seen that the laminæ, the articular processes, the bodies of the vertebræ and the ribs are each respectively ankylosed together, and the heads of the ribs also are united to the bodies of the vertebræ.

6. Permanent dislocation of the knee joint, the result of chronic arthritis. The tibia and fibula are displaced in an antero-posterior direction, the latter being behind and the former in front. They are firmly united by fibrous adhesions, as is also the patella to the anterior aspect of the femur. The preparation shows a section of the displaced joint.

7. Ankylosis (bony) of the ankle joint, with union between the lower end of tibia and fibula. Around the entire joint the amount of bone is greatly increased, probably on account of a chronic periostitis. The astragalus is united to the tibia by strong bridges of bone, but there is no union between the fibula and the astragalus. Between the tibia and fibula there are two bridges of bone, the one situated anteriorly, the other posteriorly, and leaving a crescent shaped space between the two bones, the concavity of this space looking towards the fibula.

8. Complete bony ankylosis of the left knee joint. The tibia has become rotated outwards, so that its internal surface presents forwards. The end of the femur has become displaced forwards, and the tibia backwards. The position of the patella cannot be accurately determined.

9. Caries of the spine. The laminæ and articular processes

are ankylosed together, and osseous union is also seen between the bodies in the most curved region.

10. Two specimens of ankylosed hip joints, showing complete osseous union. (Hunterian Museum.)

11. Six specimens of ankylosis of knee joint. Three show marked flexion of the leg bones upon the femur, and all show apparent evidence of active disease. (Hunterian Museum.)

12. Four specimens of ankylosis of elbow joint. In all, the union appears to have been limited entirely to the humerus and the ulna, the head of the radius maintaining movement at the joint. (Hunterian Museum.)

13. Ankylosis of knee. Old tubercular synovitis, with persisting sinuses, in a woman of 36. Limb quite serviceable, but condition of knee variable. Tibia displaced backwards and rotated outwards. Ankylosis has occurred between internal tuberosity of tibia and internal condyle of femur. Other bony parts not involved in the ankylosis, but they are greatly atrophied, and their rarefied structure is occupied by fat. (Dr. Rutherford.)

14. The arm bones showing ankylosis of the elbow joint. (Professor George Buchanan.)

15. The forearm bones, right and left, ankylosed at their upper extremities (rachitic). The right shows partially, and the left completely, torsion of the bones round the *long axis of movement*. (Professor George Buchanan.)

16. Bones composing the left hip joint. The femur is ankylosed to the pelvis in a position of flexion and abduction. A section has been made through the joint. (Professor George Buchanan.)

17. A new subcaracoid joint in an old dislocation. (Dr. James A. Adams.)

GROUP III.

Miscellaneous.

1. Lower end of tibia and fibula. From an old Syme's amputation of the foot.

2. A stump of tibia, shows marked wasting. (Hunterian Museum.)

3. A stump of tibia and fibula, shows very extensive wasting of the two bones. (Hunterian Museum.)

4. A stump of the femur, slight wasting of the bone is seen. (Hunterian Museum.)

5. Sloughing cancer of skin following a blow. From a woman aged 24. Blow on occipital region three years pre-

viously, followed by gradual formation of the swelling which has discharged at various times. Epitheliomatous nature of growth, determined by microscope. (Dr. Rutherford.)

6. Case of rupture of the mesentery of old date, occurring in a soldier of the 26th Cameronian regiment. The ruptured mesentery had healed round edges, leaving part of the mesentery still attached to the bowel, about 4 inches of which has been isolated by the rupture, and about 2 inches of which has no mesentery whatever attached to it, running like an isolated tube with a perfectly round smooth wall. The result of this had been that a large portion of bowel became strangulated in the aperture in the mesentery, and patient died from ileus.

7. Epithelioma developing in sinuses. Sinuses had existed in the buttock for six or seven years. (Dr. Rutherford.)

8. Epithelioma in scar of burn. From a man of 36. Twenty-six years before, severe burn, with extensive cicatrix, slowly formed (in ten years). Six years ago injury received in middle of the old cicatrix, upon the healing of this followed a warty growth, which gradually ulcerated. (Dr. Rutherford.)

9. Epithelioma of ankle: in unhealed ulcer of twenty-four years' standing. From an injury involving the os calcis. Patient a man of middle age. (Dr. Rutherford.)

10. Leg, showing extensive cicatrices, upon margins of which are warty growths; these the microscope shows to be epitheliomatus. From a man aged 29. Injury, a scald twenty years ago. (Dr. Rutherford.)

11. Tubercular disease of the kidney, in which the tubercular matter has become dried up. The kidney is divided into a series of cavities, varying in size, from a hazel-nut to that of a small orange. The whole of the parenchyma of the kidney is destroyed, the septa between the cavities being formed of inflammatory connective tissue. The cavities (with the exception of one from which the contents had been removed) are filled with firm caseous matter, and the ureter is also completely blocked with similar material.

12. Tubercular disease of the kidney, in which spontaneous cure has taken place by the kidney being converted into an inert, caseous, and calcareous mass. The kidney on the opposite side had undergone compensatory hypertrophy, and the patient died in consequence of an accident. Old tubercular lesions were also discovered in the apex of the left lung, but these had undergone calcification.

13. Encysted calculus in kidney. The patient, a female, aged 45, died of typhoid fever on the 17th day of the disease.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

SESSION 1888-89.

MEETING V.—27TH FEBRUARY, 1889.

The President in the Chair.

Dr. M. CAMERON showed a specimen from a FŒTUS WITH PURPURA HÆMORRHAGICA.

Drs. M. BLACK and J. ADAM showed EXENCEPHALIC FŒTUSES.

Dr. W. L. REID showed Dr. Duke's UTERINE COMPRESSOR, which is a Petit's tourniquet with a wooden bowl attached instead of the ordinary pad.

THE MECHANISM OF THE THIRD STAGE OF LABOUR.

By Dr. H. St. CLAIR GRAY, M.D.

Dr. H. St. Clair Gray first gave a synopsis of the views of various writers on the subject, quoting more particularly those who were partisans of the "shrinking site" or of the "central clot" theories. Lemser's researches were also described; that worker had inserted his hand into the uterus immediately after the birth of the child, and invariably found the placenta lying loose in the uterus. Dr. Gray then proceeded to give his own theory. He had, in his cases, always found a post-placental clot or hæmatoma present. "When the child is *in utero* alive, the maternal blood is carried by the curling arteries to the placental sinuses, and the blood is there absorbed by means of the placental tufts first described by Goodsir and Reid. These tufts I consider absorb the blood, as a sponge will suck up water, and pass on the blood by the umbilical vein to the foetus. There is then an indirect but onward flow of blood from the mother to the child, as long as the foetus remains alive in the uterus. If, however, this onward flow should receive a check, as when the child from some cause or other dies *in utero*, or when the cord is tied after the birth of the child, there will be an immediate regurgitation backwards set up, engorging the cord and pla-

centa backwards from the point of obstruction. This is seen best when the cord is tied immediately on the birth of the child, and while the cord is strongly pulsating. Immediately the cord is tied, a sort of rebound can be felt by the hand holding the cord. The cord immediately swells up, and this turgescence remains for about one minute more or less, then suddenly the cord becomes flaccid. This is due to the separation of the placenta. When the ligature is applied, the blood is still being carried to the placenta by the curling arteries, so that the placenta and cord become gorged with blood, and rupture takes place at the weakest portion of the tract which is at the utero placental tissue lying between the placenta and uterus or in the placental sinuses. I think, however, it takes place in the former, which is composed of single walled cells." The placenta is thus separated at its centre, and an ordinary uterine contraction is sufficient to separate the rest. Dr. Gray held that the presentation of the placenta by its edge or centre depended purely on its site of attachment. He based his opinions on a series of observations. In 100 consecutive cases, he tied the cord at once. The placenta was expelled spontaneously in ten minutes in all of them. In another hundred cases, the cord was cut with sharp scissors, and allowed to bleed. In all these cases the placenta had to be expressed. In this last series, little or no clot was found. In 25 cases, he introduced his hand after tying the cord, and found the placenta loose. In 25 cases, without tying the cord he found the placenta attached. In 12 cases he had his finger on the placenta, and distinctly felt the placenta bulge at the moment an assistant tied the cord. In 7 cases of version performed on dead foetuses, he had found the placenta loose. Accordingly, Dr. Gray was of opinion that the sub-placental hæmatoma plays the most important part in the separation of the placenta, aided of course by the retraction of the placental site by the ordinary contraction of the uterus; and thus that hæmorrhage to a slight extent is a normal factor in labour.

In the conversation which followed, the Society showed itself unprepared to accept Dr. Gray's fundamental statement that the blood passed so rapidly from the maternal to the foetal circulation. Reference was also made to the table in Dr. Barbour's paper, quoted from Champneys, which seemed to show there was little relation between the height of the placental insertion and its area of presentation.

ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

INSANITY.

By DR. R. S. STEWART.

Graphic Urticaria. By Lwoff (*Ann. Med.-Psychol.*, Nov., 1888).—This peculiar cutaneous condition occurred in a weak-minded man possessed of delusions of persecution and grandeur, and addicted to masturbation. When a line or figure is traced on the skin with a blunt point an erection of the papillæ takes place, followed immediately afterwards by anæmia. At the end of a few seconds a red zone, without very distinct limits, begins to appear on each side of this pale and elevated line. The coloration gradually increases in intensity, and at the same time the anæmia line becomes elevated to a height of one or two millimetres. The phenomenon attains its maximum in from ten to twenty minutes, remains stationary for an hour or more, diminishes gradually, and entirely disappears in two hours. The temperature is increased in the region of vaso-motor trouble to the extent of 9° C. The explanation given is that there is an exaggerated excitability, not only of the vaso-motor nerves, but also of the nerve fibres supplying the papillary muscles, the former accounting for the anæmia of the central line and the adjoining hyperæmia, the latter inducing the marked elevation of the skin.

Idiocy with Pachydermic Cachexia.—A very complete paper on this subject is published by Bourneville and Bricon in the *Archives de Neurologie* of September and November, 1886; two more cases are described by the former in the same Journal for November, 1888, and another case by Camuset, with notes and observations by Bourneville, in the January number of this year. The title is the one proposed by the first mentioned writers for that form of idiocy which is described by English authors as Cretinoid Idiocy, or Sporadic Cretinism with Myxœdema. The affection is characterised mainly by arrest of development, mental and physical, by a myxœdematous condition of the skin, subcutaneous lipomatous tumours in the supra-clavicular spaces and in the neighbourhood of the axillary borders, and by various malformations of the cranium. An intimate ætiological association appears to exist between this condition and absence of the thyroid gland, as is clearly indicated by the autopsies that have been made, and this is further borne out by a comparison of the results of operative and experimental removal of this body, a subject fully dealt with in the first mentioned paper.

The Structure of the Posterior Columns of the Spinal Cord. By Popoff (*Archives de Neurologie*, March, 1889).—Flechsig was the first to confirm plainly, by means of his developmental studies, the division of the posterior columns into two separate fasciculi. Bechtereff, following up these researches, further divided the outer or Burdach's columns into two separate bundles of fibres, which take on their myeline sheath at different periods of intra-uterine life, and the writer finds that a corresponding division into inner and outer fasciculi applies also to the internal or median columns. At the ninth month the fibres of the inner division possess a completely formed myeline layer while those of the outer division are still practically devoid of medulla. This indicates a duality of origin, and the writer states his belief that the inner division arises from the column of Clarke and its neighbourhood, while those of the outer originate in the posterior horn, and pass to the postero-internal column by way of the posterior commissure.

Insanity following Surgical Operations. By C. T. Dent (*Journal of Mental Science*, April, 1889).—Some interesting illustrations of the influence of disease—or rather, surgical measures undertaken for the relief of disease—on the mind are given in this paper. Operations may act in inducing mental disorder in three ways—1st, by anticipation; 2nd, by the actual operation; and 3rd, by the after effects. The disorder may be of all grades, from simple emotional disturbance up to acute mania, and they follow slight as well as grave operations. For example, a case is given of a man, a bleeder and naturally emotional, who burst into laughter every time an instrument was passed through a stricture which he had. In another case, a boy, also a bleeder, had a tooth extracted without an anæsthetic; shortly afterwards he became unreasonable, and absolutely indifferent to his friends, and remained so till his death, which took place from persistent hæmorrhage.

After operations a persistent and grave mental disturbance may remain, and though the writer admits that the insanity may be directly attributed to the anæsthetic in some cases, still in the majority of cases no such relationship is to be traced, a variable interval of perfect sanity following the administration of the anæsthetic and preceding the outbreak. A lady, hysterical and of neurotic disposition, recovered perfectly from two severe operations, but eight weeks afterwards she became more hysterical, and remained for two days in a mildly delusional condition. In this case iodoform had been freely used. A boy of 10, of sound mental organisation, had his knee excised, remained quiet for eight days, the wound doing well, and then became subacutely maniacal. A feeble woman of 65, with granular kidneys, underwent amputation of the thigh, but the stump did badly, and eleven days afterwards she became restless, and gradually drifted into senile dementia.

Acute mania occurring shortly after serious operations is of grave prognosis; the more chronic the mania the better the prognosis; and when wounds do well it will be favourable, although patients may die even when the wounds progress favourably.

The opportunities for the study and teaching of mental disorders in general hospitals are, says the writer, greatly neglected, and, in surgical wards at any rate, the septic or aseptic condition of a wound is apt to absorb so much attention as to almost exclude other phenomena occurring as the sequelæ of operations.

Folie à Deux. By Nolan. (*Journal of Mental Science*, April, 1889).—This case occurred in an insane family living in a wild, desolate, mountainous part of Ireland. The father was insane, and before his death imposed his delusions on his wife, whom he left in abject poverty with six children. Two sons, weak-minded from birth, remained with their mother, eking out a bare subsistence, avoiding intercourse with their neighbours, quarrelling between themselves, but united in their devotion to their mother. For seven years she was bedridden and carefully nursed by the sons. During this period the elder adopted the mother's deluded ideas, and after her death easily succeeded in communicating them to his younger brother. On admission to the Dublin Asylum they presented a most remarkable similarity of mental condition, delusions chiefly of noble descent, vast wealth, injury and persecution, associated with a very striking resemblance of physical conformation, expression, and manner. Another remarkable feature of this case was the independent and simultaneous development in each of a common delusion, which was expressed by each in almost identical words—an illustration of coincidence of thought arising in two degenerate minds of very similar constitution.

Acute Mania with Symmetrical Gangrene of the Toes (Raynaud's Disease). By Macpherson (*Journal of Mental Science*, April, 1889).—A girl of 18, about the eleventh day of an attack of acute mania, presented a cold pinched appearance, with a congested blue and red colouration of the arms and legs. Four days afterwards pulsation of the radial and tibial arteries had disappeared, and the mania had largely been

replaced by a condition of stupor. On the fifth day, the skin had assumed a dull brick-red colour, and next day purple-black spots formed on the toes, the patient passing into an unconscious condition, and requiring forcible feeding. From the eighth day the local congestion gradually disappeared, only a few of the dark spots sloughing, and along with the subsidence of the vaso-motor changes the condition of stupor passed away, to be replaced by the original excitement.

The writer draws attention to the occurrence of cerebral symptoms along with the peripheral changes as evidence of the development in the brain of a morbid process analogous to that affecting the limbs.

MATERIA MEDICA AND THERAPEUTICS.

By C. O. HAWTHORNE, M.B., C.M.

The Spirit of Nitrous Ether and the Nitrite of Amyl of the Pharmacopœia.—A series of investigations has recently been conducted in the research laboratory of the Pharmaceutical Society upon the chemistry and pharmacology of the nitrites of the paraffin series. Whilst the general physiological effects of the nitrites upon the circulation are well known, a definite comparative statement of the modifications of these effects and the extent of these modifications by the several compounds formed by the union of nitrous acid with the various organic radicals has not hitherto been possible. Some progress towards this most desirable end has, however, undoubtedly been made by the researches above alluded to. Professor Dunstan communicated the results of the laboratory experiments to an evening meeting of the Pharmaceutical Society in December last. At the same time, Professor Leech contributed a paper upon the spirit of nitrous ether, and Dr. Lauder Brunton and Mr. T. J. Bokenham one upon the official nitrite of amyl.

Professor Leech has made a number of observations comparing the effects following the administration of *sp. ætheris nit.* with those produced by a pure solution of nitrite of ethyl (2.5 per cent) in alcohol and glycerine, supplied to him by Professor Dunstan. He was thus able to test the suggestion he advanced some years ago, that the value of the former is due to the effect which the ethyl nitrite it contains has upon the circulation. He now reports that the above solution and the spirit, when of the official strength, produce identical results, viz.—dilatation of the arterioles, decrease of tension, and relaxation of undue contraction of the muscular coat of the bronchial tubes. Neither the one nor the other exerts any powerful influence on the skin or kidneys, though by dilating the cutaneous vessels both doubtless hasten a critical perspiration. Both, however, he regards of great value as remedies tending to prevent attacks of angina pectoris, and also for the relief of dyspnoea due to bronchial spasm, and to aid an overloaded heart by diminishing arterial tension. These remarks, however, apply only to the *sp. ætheris nitrosi*, when containing a proportion of ethyl nitrite answering to the official test. Should the ethyl nitrite be deficient in amount, the above effects are not produced, or not at least in the same degree. Now, the official spirit is a very unstable preparation, and commercial samples are generally far below the official standard. Indeed, most specimens contain mere traces of ethyl nitrite. Hence Professor Leech considers that this preparation should be replaced by a stable solution of nitrite of ethyl of a definite official strength.

Examination of the B.P. amyl nitrite showed, that recently prepared specimens were much more active than those which had been kept for some time. Dr. Lauder Brunton further found that whilst pure amyl nitrite caused a distinct fall of blood pressure, the B.P. preparation produced a much greater, and a more rapid and enduring fall of pressure. Professors Cash and Dunstan

were able to demonstrate that the latter preparation, as produced by manufacturing chemists of good repute, was a mixture of *a*-amyl nitrite, *B*-amyl nitrite, and iso-butyl nitrite. And Professor Cash found that pure iso-butyl nitrite acts more powerfully than the mixture which constitutes the official "amyl nitrite." Hence, it is at least probable, that the activity of this latter substance is due to the iso-butyl nitrite which it contains. As Dr. Brunton indicated in his paper, what physicians really want is, one remedy which will exercise a prompt and decided, but evanescent relaxing effect on arterial spasm; and another which will exercise a less rapid, and a less extreme, but a more prolonged action. The former of these is indicated in attacks of angina pectoris, the latter in the persistent high tension of Bright's disease.—(*Pharm. Journ.*, 22nd December, 1889.)

Glycerine Injections in the Diarrhoea and Prolapse of Children.—The injection of glycerine into the rectum for the relief of constipation is now generally recognised as a useful therapeutic measure. In the *Practitioner* for December, 1888, Dr. Geo. Rice advocates the same procedure as a means of relieving diarrhoea. He publishes several cases, both of "simple diarrhoea" and of diarrhoea occurring during an attack of pneumonia, in which this treatment was promptly followed by cessation of the purging. The patients were from 4 to 7 years of age, and the amount of glycerine usually injected was 2 drachms.

The Medicinal Treatment of Diabetes Mellitus.—Codeine has for some time been regarded as a remedy superior both to opium and morphine in the treatment of diabetes mellitus. As the result of a number of observations, Professor Fraser has arrived at a directly opposite conclusion. In one of the cases under observation it was found that, "under a daily administration of 1 grain of hydrochlorate of morphine, the quantity of fluids drunk, and of urine, urea, and sugar voided, was rather less than when 3 grains of opium, and decidedly less than when 15 grains of codeine, were being taken." These doses of opium and codeine produced more or less drowsiness, &c., whilst no such effects followed the administration of the morphine salt. Similar but less marked contrasts were afforded by other cases.—(*Brit. Med. Jour.*, 19th January, 1889.)

Dr. George Mahomed has successfully treated a case of glycosuria by the administration of jumbul. He gave it in the form of Christy's perles, ordering a dose of 2 grains three times a day.—(*Practitioner*, December, 1888.)

Dr. Jacobi, in view of the rapid course of diabetes mellitus in the young, insists upon the great importance of strict antidiabetic diet in all such cases. Opium, being likely to increase the tendency to cerebral complications, is contraindicated. On the other hand, mineral waters are beneficial. Arsenic in small and gradually increasing doses may be employed, and salicylate of sodium in an alkaline beverage is also recommended.—(*Archives of Pediatrics*, November, 1888.)

Memoranda.—Dr. G. A. Gibson has noted the appearance of myosis after the administration of salicylate of sodium. The pupils were greatly contracted, and the contraction lasted for some hours. Response to light was lost.

Milk is recommended by Dr. Blair as a vehicle for iodide of potassium. Two grain doses had formerly produced nausea, &c., but when given in a goblet of milk, the patient could easily take 40 grains of the iodide without discomfort.

The death of a child in New York is reported as following the administration of a powder containing calomel and antipyrin. Experiments fail to reveal the development of any chemical reaction when these substances are mixed.

Dr. Batherburry points out that the taste of antipyrin is completely disguised when the medicine is added to a cup of coffee.

MEDICINE AND PATHOLOGY.

By R. STEVENSON THOMSON, B.Sc., M.B., C.M.

Investigations into the Nature and Cause of Beri-Beri.—The following are some of the results of the investigations of the Dutch Government into the nature of this little understood malady:—Beri-beri may be described as a rheumatic affection attended with dropsical swelling, more prevalent on the coast than inland, and occurring both in an acute and chronic form. The two Dutch physicians who have investigated beri-beri in Batavia and elsewhere, report that the disease is one brought about by bacterial absorption, and this theory is supported by the assertion that cultivated bacteria, from the blood of a patient suffering from the malady, will, when inoculated, produce the disease in a healthy subject. The infectious character of the disease is further evidenced by the fact that buildings such as barracks, are very apt to harbour the germs and communicate the disease to predisposed persons. Buildings in which many people congregate seem specially apt to retain the poison, which, it is said, enters the system through the respiratory tract. In the opinion of the investigators, the only means of combating this disease is by vigorous disinfection, substantial structures being fumigated and disinfected, while lighter structures, such as those built of bamboo, are burned down. The treatment of this disease by medicine has hitherto proved unsuccessful.—*Japan Gazette.*

Treatment of Diphtheria by Hydronaphthal, Papain, and Hydrochloric Acid Spray.—Dr. Caldwell, of Chicago, reports in the February number of the *Archives of Pediatrics*, seven cases treated by the above spray. He starts with the theory that at first diphtheria is a purely local disease, and that the fever is due to the presence of leucomaines, while later the disease becomes general from the absorption of the microbes of septicæmia and diphtheria. The pseudo-membrane is supposed to indicate the seat of primary infection, while the lymph-spaces underlying it are first invaded by the microbe. The indications for treatment following upon these propositions are:—(1) Remove the pseudo-membrane, so that the microbes can be reached; and (2) arrest their growth. To fulfil these indications Dr. Caldwell employs the following mixture:—

R.—Papain,		℥ii.
Hydronaphthal,		gr. iii.
Acid. hydrochlor. dil.,		gr. xv.
Aq. ad.,		℥iv. M.

This spray, as is recommended, should be used every half-hour till the temperature is reduced and breathing is easy; then every hour unless the patient is asleep. When the spray was used thoroughly in the quoted cases, the temperature fell in from four to eight hours. The fever in the early stages of the disease being due to the absorption of leucomaines, the fall of temperature was much more marked than it would have been had the treatment been delayed till the absorption of septic organisms had caused the disease to become general.

In addition to this treatment the bowels are ordered to be kept open, and the patient is fed upon 2 to 6 oz. of milk, administered every two hours. Of the seven cases reported only one died.

The Treatment of Incontinence of Urine in Children by the Sound.—Dr. J. E. Clark, of Brooklyn, in the *Archives of Pediatrics* for March, gives his experience in the treatment of this troublesome affection by the sound. The treatment with the usual remedies proving unsatisfactory, he was led to suspect the presence of irritable urethra, and examination found

this surmise correct, so that in all uncomplicated cases the author relies upon the sound alone. Dr. Clark has never been able to satisfy himself of the presence of organic stricture in such cases, though a spasmodic resistance to the passage of the sound along the urethra seems very usual. In giving directions for treatment he says—"I need hardly say that in introducing the sound the utmost gentleness is to be exercised. It should be manipulated gently, as far as it will go without force, left in a few minutes, and then withdrawn. After an interval of five or six days the procedure is to be repeated, when it will be found that there is less irritation in the anterior portion of the urethra, and the sound will go more easily and further; but if there is much resistance, the operation must cease. It will probably not be until the third attempt that the sound passes readily into the bladder. After that the size of the sound can be increased, and a few more applications will completely subdue the irritation.

"It is not desirable to dilate the urethra in a child above its natural size. Such attempts do harm. I think No. 9 English is as large as most children under twelve years will bear."

Infection of the Fœtus with Pneumonia through the Mother.—At a meeting of the Biological Society of Paris, M. Netter mentioned several cases where mothers suffering from pneumonia bore children who manifested lobar pneumonia on the twelfth or fourteenth day. He saw one case in which the mother passed the crises on the seventh day, and on the ninth gave birth, without accident, to an eight-month child, which died five days later. The *post-mortem* revealed pneumonia, involving the upper lobe of the right lung, double pleurisy with fibrinous exudation, pseudo-membranous pericarditis, suppurative cerebro-spinal meningitis, and double otitis. Throughout the tissues and in the blood pneumococci were found, though none were detected in the placenta. Of six other cases, the pneumococcus was found in the blood of the urinary vessels on two occasions. M. Netter explained the fact that one so seldom finds pneumonic hepatisation and pneumococci in the lungs of children born of mothers suffering at their birth from pneumonia, by pointing out that this depends on the absence of a necessary local condition—the breathing of the child. Foa and Uffreanzzì certainly found no pneumonia in two similar fœtus, while pneumococci were found in the liver and kidneys. On the other hand, it might happen that the pneumococcus from the mother settles not in the lungs, but elsewhere—*e. g.*, in the pia mater, giving rise to suppurative meningitis, and the fœtus may die within twenty-four hours without showing any sign of lobar pneumonia.—*Deutsche Medicinal Zeitung*, 28th March, 1886.

Sclerosis of the Neuroglia in Epilepsy.—In the beginning of March, M. Chaslin exhibited four brains from epileptics before the Biological Society of Paris. All showed more or less extensive and distinct sclerosis, though one showed no alteration visible to the naked eye, except induration of one of the olivary bodies. Macroscopically, the affected convolutions were seen to be small, wrinkled, smooth, or slightly roughened and atrophied. The hippocampi and olivary bodies were more or less involved. Between these were large patches of apparently healthy tissue. The pia mater was healthy and not adherent.

Microscopically, the grey matter of the most markedly altered patches was found to be destroyed by fibrous growth springing from scattered spindle-cells with hypertrophied processes, which cells, under normal conditions, do not form distinct fibrils, while their processes are scarcely visible. Those fibrils formed thick bundles throughout the tissue. Since Ranvier's discoveries, it has been recognised that the supporting tissue of the nerve-centres is not true connective tissue, and that the neuroglia springs from the ectoderm. The fibres which M. Chaslin observed, consist of neuroglia elements, and spring from the ectoderm, and this cellular origin accounts for their independence of the other tissues, for the uninfamed condition of the vessels, the non-adherence

of the membranes, and the special hysto-chemical reactions. It follows, therefore, that in these cases there is a special form of sclerosis caused by proliferation of the neuroglia, a protective tissue springing from epithelial structures, and not upon any inflammatory process. In the brain, in which only induration of one olivary body could be observed, M. Chaslin was able to demonstrate proliferation of the neuroglia in progress. He concludes (1) sclerosis of the brain, or at least the more evident forms of this lesion, is due to proliferation of the neuroglia. This he calls "sclerosis neurogliaca." (2) The so-called true epilepsy shows in a considerable number of cases proliferation of the neuroglia as its primary cause, occurring probably under the influence of some disturbance of development in which heredity plays a part, and with which inflammation has nothing to do.—*Deutsche Medicinal Zeitung*, 18th March, 1889.

DISEASES OF THE EAR.

By Dr. WALKER DOWNIE.

Chronic Ear Disease, followed by Intra-cranial Complications and Death.—In the Saint Thomas's Hospital Reports for 1889, Dr. John S. Bristowe gives particulars of four cases which had been under his care within a period of a few months. Three were adults who had been the subjects of deafness, with earache and discharge, for years. The urgent symptoms in each case were of short duration. Pain, not so much in the ear as over the side of the head corresponding to the affected ear, with tenderness around the mastoid process, tenderness and swelling in the course of the internal jugular vein, and a temperature running up to 105·4°, 107·2°, and 107·4°, in the three cases respectively. This was associated with rigors, and occasional slight rambling, followed by drowsiness and coma. There were no convulsions, and neither the pupils nor fundi of the eyes were affected. The symptoms were those of septicæmia rather than cerebral disease—the obvious ear disease, along with the site of the pain, determining the diagnosis of brain mischief. After death, in addition to the ear disease, thrombus of the lateral sinus was found with more or less distinct evidence of pyæmia or septicæmia.

In the fourth case, in addition to chronic ear disease, the patient was the subject of disease of the hip joint. Both those conditions were probably tubercular in origin, and the aural disease induced not inflammation of the lateral sinus, but diffused meningitis and an abscess in the temporo-sphenoidal lobe. The fatal symptoms were those of meningitis.

The question of operative interference was considered in all four cases, but for reasons that seemed sufficient was resorted to in none of them.

Mastoid Caries. By Dr. W. A. Giles.—Under "Notes on Ear Practice," Dr. Giles gives the history of a case of caries of the mastoid cells as the result of acute otitis media without perforation of the membrana tympani. The otitis did not result as a sequel to scarlet fever or measles, but possibly originated in pharyngeal disturbance. The symptoms were so acute as to produce cedema of the eyelids in addition to marked swelling behind and above the auricle. By an incision made over the mastoid, a large quantity of fetid pus was evacuated, and a great part of the bone, which was found to be in a condition of caries, was gouged out. By these means the tympanum was readily washed out and drained with satisfactory results.—*The Australasian Medical Gazette*, November, 1888.

Necrosis of the Labyrinth.—At the Congress of Otolgy, held at Brussels in September, 1888, Dr. Turnbull, of Philadelphia, described a case of "necrosis of the mastoid cells and the entire labyrinth of the other side, with paralysis of the facial nerve." The patient was a girl, 9 years old, who,

after an attack of scarlet fever, had mastoid abscess on right side, followed by necrosis of the part. After removal of the dead bone the part healed, and she left the hospital. Four years afterwards she returned, suffering from profuse left-sided otorrhoea with facial paralysis and deafness. She had had diphtheria, which in its course had involved the middle ear and labyrinth, and was followed by facial paralysis, loss of sight, hearing, and locomotion. Granulations which filled the external meatus were scraped away, and when the necrosed bone became loose it was removed through the enlarged meatus, and proved to be almost the whole of the temporal bone. On section it was found to contain the vestibule with its fossæ, the cochlea, the modiolus and lamina spiralis with the semicircular canals broken off near their junction with the vestibule. The patient is now in good health, and can hear a 20-inch watch one inch from the right ear, though not at all on the left side. By the aid of what hearing power she possesses she has been taught to speak.—(*Journal of the American Medical Association*, 1st December, 1888.)

The Treatment of Acute Inflammations of the Middle Ear.

By Chas. F. Pickering, F.R.C.S.—Here Dr. Pickering draws attention to the lines on which acute inflammation of the middle ear should be treated. To obviate the dire results seen so frequently by aurists, the treatment should be of a decided character, and should be resorted to in the earliest stages. In the majority of cases the first note of warning of commencing acute inflammation of the middle ear is acute pain. When such occurs the external meatus should be cleansed and rendered aseptic by the use of 1 to 2,000 perchloride of mercury solution, and the passage occluded by a pledget of antiseptic wool. Following this, means should be adopted to arrest the course of the disease by the use of leeches, hot fomentations, or the application of soothing medicaments around the ear.

When suppuration has occurred, the meatus should be cleansed daily with boracic lotion and boracic powder, with or without iodoform, and if the discharge persists, with powdered alum added, insufflated. After the more acute symptoms have passed, the tympanum should be inflated by means of Politzer's bag, which, by opening up the Eustachian tubes, allows pent-up exudations to escape. When thickening of the mucous lining of the tympanum results, Dr. Pickering, in common with most aurists, recommends the injection of solutions of iodide of potassium or the vapour of iodine as being the most serviceable agents with which to restore the membrane to a healthy condition.—(*Bristol Medico-Chirurgical Journal*, March, 1889.)

Catarrhal Deafness.—An interesting post-graduate lecture on catarrhal deafness, delivered by George P. Field, M.R.C.S., will be found fully reported in the *Medical Press and Circular* for 27th March and 3rd April, 1889.

Fatigue from the Use of the Telephone.—At a meeting of the American Otological Society, held in Washington, a paper was read by Dr. Clarence J. Blake, of Boston, on the influence of the telephone on hearing-power. Sounds as heard through the telephone are of extremely low intensity: in order to hear these sounds aright, the listener is compelled to strain the ear, which soon becomes fatigued. In the discussion which followed, several spoke of impaired hearing-power resulting from the continued and prolonged use of the telephone.

Books, Pamphlets, &c., Received.

- The Treatment of Epilepsy, by Wm. Alexander, M.D. With 9 illustrations. Edinburgh and London: Young J. Pentland. 1889.
- The Causes and Treatment of Abortion, by Robert Reid Rentoul, M.D., with an Introduction, by Lawson Tait, F.R.C.S. Two coloured plates and 35 engravings. Edinburgh and London: Young J. Pentland. 1889.
- The Essentials of Physical Diagnosis of the Chest and Abdomen, by J. Wallace Anderson, M.D. Glasgow: Jas. Maclehose & Sons. 1889.
- The Early Symptoms and the Early Treatment of Osteo-Arthritis (commonly called Rheumatoid Arthritis), by John Kent Spender, M.D. Lond. London: H. K. Lewis. 1889.
- Futility of Experiments with Drugs on Animals, by Edward Berdoe. London, 1889.
- A Handbook of Cryptogamic Botany, by Alf. W. Bennett, M.A., B.Sc., and George Murray, F.R.S. With 378 illustrations. London: Longmans, Green & Co. 1889.
- Lectures on Pathological Anatomy, by Samuel Wilks, M.D., F.R.S., and the late Walter Moxon, M.D. Third edition, thoroughly revised by Samuel Wilks. London: Longmans, Green & Co. 1889.
- A Text-Book of Midwifery, by the late Otto Spiegelberg, translated by J. B. Hurry, M.A., M.D. London: The New Sydenham Society. 1888.
- Curvatures of the Spine, by Noble Smith, F.R.C.S. Eng. Third edition. London: Smith, Elder & Co. 1889.
- Leprosy an Imperial Danger, by Archdeacon Wright, M.A. London: J. & A. Churchill. 1889.
- The Treatment of Lateral Curvature of the Spine, with Appendix on Flat Foot, by Bernard Roth, F.R.C.S. London: H. K. Lewis. 1889.
- Verhandlungen der Berliner Medicinischen Gesellschaft, 1888. Band XIX. Berlin: L. Schumacher. 1889.
- Exploration of the Chest in Health and Disease, by Stephen Smith Burt, M.D. London: H. K. Lewis. 1889.
- The Bacteria in Asiatic Cholera, by E. Klein, M.D., F.R.S. London: Macmillan & Co. 1889.

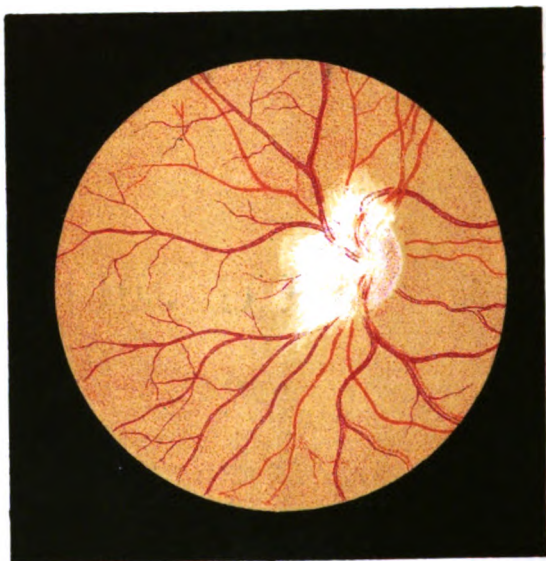


Fig 2.



Fig 1.

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ORIGINAL ARTICLES.

A CASE OF RETINITIS ALBUMINURICA AND A
CASE OF OPAQUE NERVE FIBRES.*

(With Chromo-Lithographic Illustrations.)

By T. SPENCE MEIGHAN, M.D.,
Surgeon, Glasgow Eye Infirmary.

1. RETINITIS ALBUMINURICA.

THIS case is of special interest, as being one in which the examination of the eyes gave the first indication that in all probability the patient was suffering from a kidney lesion, which, judging from the retinal appearances, must have existed for some time. With the exception of what the patient called neuralgic headaches, accompanied sometimes by giddiness and stomach derangement, with occasional vomiting, he had had no serious illness to excite his attention till his sight began to fail.

The following is the history of the case.

G. C., aged 35 years, a shoemaker, came to the Glasgow Eye Infirmary on the 25th February last. He complained of dimness of vision, and stated that when he looked at an object there was a greyish mist before his sight, and explained very clearly that this mist did not cover the whole field of vision. This he discovered by looking at a placard, when he could see

* Shown at the Glasgow Pathological and Clinical Society, Monday, 8th April, 1889.

the letters at the beginning and end of a word, but not those in the centre. This central dimness of vision has fluctuated, being worse whenever his head troubled him. He was always able to read ordinary print, till shortly before admission, but now he can only see No. 14 Jaeger's test types with the right eye, and No. 20 with the left.

His colour vision is comparatively good, and on examination with the perimeter, his field of vision in both eyes is found to be contracted, and with a small central scotoma, more pronounced in the right eye.

The patient is thin, pale, and rather anxious about his condition. He dates his illness from three years ago; before this time he had always enjoyed good health until the commencement of his present illness, which he thinks was due to irregular habits, and a cold caught by sleeping in wet clothes.

The first symptoms were severe headaches, especially affecting the frontal region, with some thirst and stomach disorder. He did not vomit at first, although he has had repeated attacks of vomiting since then, and thinks now that he noticed his face was sometimes puffy in the mornings, and that his feet swelled occasionally.

It was after one of these severe attacks of vomiting that his eyesight became affected. His appetite on the whole has not been good, but he says he is drinking more water than formerly. He noticed that the urine was sometimes of a high colour, and frequently muddy, and that occasionally he had to get up during the night to micturate. But since his eyesight got bad he has had occasion to make water every two or three hours. Thinking there was nothing seriously wrong he continued at his work till the sight became defective.

He was on the whole a temperate man, but occasionally indulged in a glass of spirits.

The estimated quantity of water passed in the twenty-four hours measures 60 oz., the specific gravity is 1010, colour pale straw, albumen copious, equals three-eighths of the tube. Microscopic examination shows hyaline and granular tube casts, with some epithelial *debris*.

There is hypertrophy of the left ventricle of the heart, the apex beat is situated at the sixth interspace, and 5 inches from the middle line, the second sound is accentuated over aortic cartilage. His arteries are hard and tortuous, and the pulse averages from 60 to 70 beats per minute.

Ophthalmoscopic Examination.—The fundus of the right eye was clearly seen by the direct method of examination. The centre of the fundus was of a lighter colour than the

periphery. The optic disc is nearly obscured, and there is considerable infiltration of the disc and surrounding retina. The white patches characteristic of albuminuric retinitis are seen in different parts of the fundus, especially around the optic disc, the smaller ones being principally in the neighbourhood of the blood-vessels. While these spots are seen to differ in shape and size, they also differ in colour, some having a white glistening appearance, while others have a dull yellowish look, the largest patch is situated in the macular region, and has a yellowish white shiny appearance. The blood-vessels are tortuous, more especially the veins, which are dilated out of proportion to the size of the arteries. The vessels on the whole are more numerous than usual.

Several hæmorrhages of various sizes occupy positions surrounding the disc and a short distance from it. These hæmorrhages have for the most part a streaky or flame-like appearance, while others are more or less rounded, and are apparently situated in a deeper layer of the retina. (See fig. 1.)

The ophthalmoscopic appearances of the left fundus are nearly the same as those of the right, the veins appearing dilated and tortuous, and the arteries contracted.

The optic disc is quite as obscure as that of the right eye, and as many white patches and hæmorrhages are seen throughout the fundus. The region of the yellow spot is also occupied by a large star-like yellowish patch, larger than the similar patch seen in the right eye.

The appearances in this case are characteristic of a severe renal retinitis, occurring in what may be called the second stage of this affection (Leber), and which is usually associated with kidney disease of some standing. In some forms of retinitis occurring in Bright's disease, hæmorrhages are the predominant feature, while inflammatory changes in the disc and retina are less pronounced. In other cases, the disease is seen in a degenerative form, and is characterised by the appearance of white or yellowish white patches of fatty degeneration, having a pearl-like lustre, affecting both eyes, although one eye may be more affected than the other.

In the present case there were marked appearances, both of degeneration and of inflammation.

As regards, first, the alterations in the disc and retina. The swelling and degeneration of the nerve fibres form a zone round the papilla, and have determined a bulging of the papilla forwards so as to simulate a neuritis or neuro-retinitis due to some cerebral lesion. The greyish appearance of the optic disc and zone of retina around it, is due to inflammation,

and, with the swelling, is the result of serous effusion into the interspaces of the nerve fibres.

The inflammatory lesion may vary from simple œdematous infiltration which does not obscure the disc, to a state in which the disc is entirely obscured by exudation.

It is in the early stage that the papilla and neighbouring retina are most affected by diffuse infiltration. At the commencement we do not see the white spots of degeneration, which are so characteristic of the later stages, but there is increased vascularity, the disc and surrounding retina become slightly swollen and of a greyish red colour, and the veins dilated and tortuous, while the arteries are small.

In the scarlatinal form of the disease, these changes may go no further than infiltration, and complete resolution with recovery may take place. But when resolution does not take place, other changes appear in the form of white spots and hæmorrhagic extravasations in the retina. These white spots are usually numerous, and are situated for the most part on the central portion of the retina; rarely do they occur on the peripheral portion.

The hæmorrhagic spots may, and frequently do, precede the white spots in point of time, especially if the congestive stage has been at all severe.

The white spots, although brilliant, are seldom quite white, but rather of an opaque yellowish colour. They are patches of fatty degeneration, and may be connected or not with old standing hæmorrhages, and are usually found in different parts of the fundus, the smaller ones being often found in the neighbourhood of the blood-vessels, sometimes behind and sometimes in front of a vessel, and thereby covering a part of its length; whitish streaks are also sometimes found running along the course of the vessels.

These spots are due to degeneration of the layer of nerve fibres, which are found to be greatly thickened, varicose, sclerosed, and to contain fat-like globules. Degeneration of other retinal elements, and of the vertical fibres of Müller may also be found. It is to the position of these latter fibres, radiating as they do from the fovea centralis, that the stellate appearance of the spots in the region of the macula is mainly due.

The white spots and patches near the disc may increase in number and size until they surround the disc in one large patch, having such a bright appearance that the fibres appear as though they had preserved their neurilemmal sheath.*

* De Wecker, *Ocular Therapeutics*, p. 385.

The alterations in the retinal vessels present the usual appearance found in many cases of Bright's disease; the arteries are contracted in size, and the veins are dilated. This has been observed by many authors. Gowers,* however, states that while the veins are not larger than usual, the arteries are reduced to a size not more than one-half the diameter of the veins, and in some cases they may be even reduced to the appearance of fine lines which are frequently in places lost to view, from being imbedded in the swollen retina.

Drs. Brailly and Edmunds† have shown that the changes in the arteries consist in a general thickening of their coats, without any diminution of their calibre, and that these changes may have occurred although no alteration is perceptible on examination with the ophthalmoscope. In a later stage the arteries may become more or less impervious from an increased thickening of all their coats; the affected vessels become rigid, thickened, and varicose, this latter condition being due to irregularities in the morbid process.

The passage through the tubes may be reduced to a mere trace, or the tubes may become entirely obliterated and reduced to white fibrous threads. The veins show, in my opinion, a considerable increase in size, being tortuous and distended with blood, but otherwise there are not the same changes as in the arteries.

The changes which have taken place in the walls of the vessels, whereby their power of resistance has become reduced, will readily account for the hæmorrhages which form a conspicuous feature in this disease. These occur in different parts of the retina, but are principally found in the internal or nerve fibre layer. In this situation they appear streaky or flame-form, following the course of the nerve fibres; hæmorrhages in the deeper layers are generally rounded or irregular. The flame-like effusions are generally quickly absorbed, but when the hæmorrhages are larger, and situated in the deeper parts of the retina near the yellow spot, they are absorbed much more gradually, and have a tendency to fatty degeneration, as seen by the presence of small white patches occupying the seat of the original hæmorrhages. Both white spots and hæmorrhages may in time disappear completely, a result often seen in the retinitis of pregnancy.

The alterations in the choroid are similar to those in the retina, the parts affected having the same tendency to fatty

* *Medical Ophthalmoscopy* (1882 Ed.), p. 181.

† *Trans. Ophth. Soc.*, vol. i, p. 44.

degeneration, and the walls of the arteries are thicker than normal. It has been shown that sclerosis occurs in bright patches in the chorio-capillaries, and in the neighbourhood of these patches the pigmentary structure is disturbed. Hæmorrhages are of less frequent occurrence in the choroid than in the retina, and great visual disturbance will follow if hæmorrhage occur behind the macula.

Cases of subretinal effusion causing detachment of the retina have been recorded, but such an occurrence is very rare.

The course of the disease varies in duration, but it rarely results in recovery. Very often the growing complications of the general disease make the patient indifferent to the state of his sight. It is not unusual to find the retina regain much of its normal structure, more especially in the retinitis of pregnancy. The hæmorrhages may become absorbed; and, with the exception of the white patches of degenerative change in the region of the macula, most of the white spots may disappear.

As regards the prognosis of albuminuric retinitis, Dr. C. S. Bull,* New York, has presented an analysis of 103 cases observed by himself. Cases in which the retinitis followed scarlatina or pregnancy were excluded. Of the 103 patients 86 died. In the first year after coming under observation 57 died; in the second, 18; in the third, 6; in the fourth, 4; and in the sixth year, 1. Of the 17 still living, 14 had been seen within six months. In one case seen seven years ago renal disease was still present.

Dr. Miley,† in an able paper, has given the experience in the London Hospital, and has shown that, excluding pregnancy cases, the mortality of the cases of albuminuria affected with neuro-retinitis is double that of the unaffected cases. His conclusions are based on an examination of 375 cases, and are as follow:—

1st. That the retinal changes occur late in renal disease.

2nd. That their presence appears to affect the prognosis, very materially, for the worse, the mortality amongst the affected cases being at least doubled.

3rd. That the prognosis is so bad that eighteen months is an exceptionally long term of life after the changes have been recognised.

* *Transactions of American Ophth. Soc.*, 1886.

† *Trans. Ophthal. Soc.*, vol. viii, p. 132.

2.—OPAQUE NERVE FIBRES.

J. D., aged 32 years, a carter, consulted me in March last, complaining of a dimness of vision in his left eye, which he says he discovered in the following manner. He had never experienced any defect of his vision till one day he purposely shut his right eye, and found he could not see so well with his left, owing to a mist before his sight. He states that, with the exception of some trivial ailments he has always been in good health. His mother suffers from cataract, and has had one eye operated on, but no other member of the family has any defect of sight.

Reads No. 1 Jaeger's test type with the right eye, and No. 10 with the left.

Ophthalmoscopic examination shows the refraction in both eyes to be hypermetropic—right, + 2 D; left, + 3 D.

The fundus of the right eye appears normal. In the fundus of the left eye an irregularly shaped white patch is seen at the inner and upper part of the optic disc. This patch has a striated, glistening look, and is of a pearly white colour. The vessels in the upper part of the disc are partly concealed by the patch.

The remainder of the fundus is normal (see Fig. 2). The field of vision of the right eye is normal: in the left eye the blind spot is larger than usual.

The white patch observed by the ophthalmoscope in the left eye is due to opaque nerve fibres of the retina, a condition of rare occurrence. This peculiar but physiological appearance is always congenital, and in some animals (such as the rabbit) is part of the normal state.

The retina in its normal state is so translucent that it can barely be seen, and then, only in dark eyes and with strong illumination, is it possible to distinguish the striæ of nerve fibres, particularly along the course of the vessels. This normal transparency of the retina depends upon the arrest of the sheaths of the nerve fibres at the optic disc. In rare cases, such as the present, the peculiar appearance is produced by the medullary sheaths of the optic nerve fibres, which should cease at the membrana cribrosa, being continued beyond this point, and forming an opaque white patch corresponding in size to the number and length of the fibres so sheathed. At the border of the patch the neurilemmal sheath thins off gradually, leaving the axis cylinders of the nerve fibres to radiate in the usual way. These white patches are most

often seen upon the edge of the disc, and may involve the whole circumference, or may extend far into the retina, where sometimes separate patches of opacity are seen.

They are never seen in the yellow spot, nor in the central part of the disc, because in these situations there are no nerve fibres.

The retinal vessels are normal in size, and when they pass in front of an opaque patch, will be seen very distinctly; they may, however, pass along in various depths in its substance, when they will be more or less obscured, varying in obscurity with the depth at which they are embedded.

Unless extensive, these patches do not cause dimness of vision, but usually produce an enlargement of the blind spot; and they do this because the cloudy nerve filaments cover the deeper sensitive elements of the retina.

One or both eyes may be affected.

These patches may be recognised by their fine striated appearance, radiating from the disc, and their pearly white lustre, which has been described by v. Recklinghausen as resembling asbestos, the edges being marked with a feathery or hair-like fringe.

There is seldom any difficulty in distinguishing between this condition and the opacities due to neuro-retinitis.

TWO CASES OF TOTAL LOSS OF HEARING IN BOTH EARS, CONSEQUENT UPON MUMPS, WITH OBSERVATIONS.*

By THOMAS BARR, M.D.,

Surgeon to Glasgow Ear Hospital and Lecturer on Aural Surgery,
Anderson's College, Glasgow.

I HAVE brought here two patients, afflicted with complete, or almost complete, loss of hearing, originating in mumps. In the one case the deafness has been of five months' duration, in the other it has existed for twenty-three years.

The *first* or more recent case was sent to me by Dr. M'Vail, of Kilmarnock, and is that of a boy, over 5½ years of age, who suffered from mumps in November last. The attack followed

* Shown to the Glasgow Pathological and Clinical Society on 13th May, 1889.

immediately after a brother had been affected by the same disease. The boy is one of a family of eight, and was regarded by the mother as the least robust. He was very susceptible to nasal catarrhs, and he generally breathed by the mouth. There was frequently also a discharge from both ears; this discharge, however, never continued for more than a few days, and was always preceded by restlessness. On these occasions, however, the hearing was only slightly and temporarily affected. During the course of the mumps, he was not confined to bed, although somewhat feverish, and, as the mother expressed it, "the swelling of the neck did not come much out." After the mumps had passed off, a discharge from the right ear was noticed, but this ceased in two or three days. When the illness had lasted for about a week, the child seemed, quite suddenly, to lose his hearing, and could not make out what was said, even when spoken to in the loudest tones. At the same time he was seized with giddiness, so marked that, in the words of his mother, "he was like to fall." The child also complained of hearing a "mill" in his ears. On the same day, just before these symptoms were noticed, the child came in from the open air crying that he had great pain in the back of his head. This pain, however, soon passed off. The disturbance of equilibrium only continued for about a week, but the loss of hearing has persisted, and so far as can be made out, the hearing power is now abolished, for all practical purposes. The parents believe that a very loud whistle sounded near to the ear is audible to the child. The power of speech, which was very good prior to the illness, is becoming less and less distinct, and will no doubt soon be entirely lost. Objective examination of the ears shows in the right a small round perforation in the postero-inferior part of the membrane, while the existing portion of the membrane is opaque. In the left ear there is a cicatrix in the antero-inferior part of the membrane. These lesions point, of course, to past inflammatory processes in the tympanic structures.

The *second* case is that of a man, 35 years of age, who heard perfectly well, and who never had any form of ear disease, up to the time when he had an attack of mumps at the age of 12 years—23 years ago. He is the son of a soldier, was born in Singapore, and lived his earlier years in Madras. While in India he suffered several times from ague, for which he had taken large quantities of quinine. When he suffered from mumps, the whole of the family, including his mother, were affected with the same disease. On account of the length of

time which has elapsed, it is difficult to obtain accurate details of the symptoms, but apparently the hearing power passed away somewhat more gradually than in the case of the boy, but seemed to be entirely lost about a fortnight after the commencement of the mumps. As he was recovering from the mumps, he became affected with a second illness which continued several weeks and was termed typhoid fever. During convalescence from this fever he complained of noises in his ears, which were so disturbing as to prevent sleep. There is no recollection of giddiness, but this symptom—though present—might have been unobserved in consequence of the second illness. This man is unable to hear speech, even though words are spoken loudly into a conversation tube inserted into his ears. He hears the note of the tuning-fork C by bone conduction, as well as by ærial conduction when held close to the ear. He hears also the click of Politzer's hörmesser near to, although not touching, the ear; this is remarkable considering his utter inability to hear speech. On account of the more advanced age at which he lost his hearing, this patient has not lost the power of speech although, as we generally find in such cases, the voice is harsh and unmodulated. Objective examination shows no signs of disease in the conducting structures; the tympanic membranes are quite normal in appearance, and the Eustachian tubes are permeable.

Observations.—These cases should be clearly distinguished from the affections of the external and middle ears which sometimes arise from inflammation of the parotid, whether this inflammation be of the epidemic or of the simple inflammatory form. In these two patients *the lesion is undoubtedly in the labyrinth*. In the case of the boy, there is in addition mischief in the middle ear, mainly the result of old inflammatory processes, but this would produce only partial defect of hearing, and there is little doubt that the middle ear disease existed previous to the mumps, and at a time when the hearing was satisfactory. A most interesting question is—How was the labyrinthine disease brought about, and what is its nature? It is easy to understand how inflammation of the parotid gland may extend to the external auditory canal or middle ear through the *incisura Santorini* (clefts in the cartilage) to the external auditory canal, and through the Glaserian fissure to the tympanic cavity. But in such cases as I have shown, the mode in which the labyrinth has been involved, and the nature of the pathological process therein are not so clear.

Some authorities, as Dr. Roosa, of New York, argue that the parotid inflammation passes first to the tympanic cavity, and then through the inner wall of the tympanum to the labyrinthine spaces. This, judging from the suddenness of the deafness, and the usual absence of fresh lesions in the middle ear, is a most improbable explanation. Others have suggested, with equal improbability, that along the facial nerve the disease may be propagated to the labyrinthine structures. The view which commends itself to my mind is, that the mode of extension and the nature of the pathological process are similar to the processes in inflammation of the testicles or of the mammæ, which are well known phenomena in the course of mumps. The probability is that the morbid poison of mumps which, according to Ollivier,* is of the nature of micro-organisms (cocci and bacilli), attacks in certain cases the labyrinthine circulation, leading to serous or hæmorrhagic exudation, or to embolism of the internal auditory artery in its cochlear or vestibular branches, and that in many cases these exudations are, after absorption, followed by atrophy of the nerve structures. In short, the parotitis, the orchitis, the labyrinthitis are local expressions of the same morbid condition of the blood, and due to the migration of the micro-organisms into these several structures.

In our standard text-books I find little mention of labyrinthine disease as a possible concomitant of mumps. In Reynold's *System of Medicine*, in Gerhardt's *Handbuch der Kinderkrankheiten*, and in Barthez and Rilliet's treatise I find no allusion whatever to this possibility. It is referred to, however, in Ziemssen's *Cyclopædia of the Practice of Medicine*. Even in special text-books on disease of the ear only meagre information has, up till very recently, been given. Roosa, Burnett, and Dalby enumerate mumps as an important cause of ear disease. Toynbee and Hinton were aware of this complication, and seem to have regarded it as a frequent occurrence. Toynbee says—"The peculiar poison which causes the disease, generally known by the name of mumps, is *very often* the source of complete deafness which, however, usually occurs in one ear only." The experience of other otologists does not bear out this view of the frequency of this complication, and up till eight years ago very few cases, if any, had been recorded. More attention has been given to this subject since a paper was read to the American Otological Society by Dr. A. H. Buck, of New

* A. Ollivier, "The Contagiousness of Mumps" (*Revue Mens. des Mal. de l'Enfance*, 1885, Julliet).

York, in 1881, in which he related two cases of sudden and total loss of hearing, limited, however, to one ear, originating in mumps. I find in going over the literature of the subject that, since this paper of Dr. Buck was reported, 29 cases have been recorded in America, France, and Germany, and 1 in this country. In 8 of these both ears were involved, and in 22 the deafness was limited to one ear. In all, the ear complication came on suddenly from the fourth to the eighth day after the onset of the mumps, was attended by total loss of hearing, which proved permanent, and was looked upon as undoubtedly labyrinthine in character. In 11 of these vertigo and tinnitus were observed; in the remaining number there was tinnitus but not vertigo. In some, however, owing to the long period which had intervened between the attack of the mumps and the time when the case came under observation, it was impossible to determine whether vertigo had or had not existed as a symptom. It has been suggested that in the cases where there is no vertigo the pathological process is limited to the cochlea, while in the cases attended by disturbance of the equilibrium the vestibule and the ampullæ of the semicircular canals are the parts which are mainly involved. With few exceptions, there was in the recorded cases no middle ear disease, and where such did exist, it was evidently a mere concomitant, and could not account for the serious functional disturbance of the organ.

In order to elucidate still further the relation of the labyrinthine affection to mumps, as well as its clinical and pathological aspects, it would be most desirable that the general practitioner and the physician should be on the look-out for ear complications during mumps. It is possible that loss of hearing, due to mischief in the labyrinth, especially when limited to one side, may be a much more common result of mumps than is now believed. One-sided deafness, we know, is very apt to escape attention, especially in childhood, so also defective hearing of a temporary character is apt to be overlooked, and, for aught we know, some—perhaps many—of these unrecorded or unobserved cases may recover. Therapeutically, also, the early recognition of these cases might be of great importance, for by the use of such an agent as pilocarpine, exudation into the labyrinth might be more quickly absorbed, and permanent mischief to the nerve structure might thereby be averted.

A CASE OF CICATRICIAL CONTRACTION OF THE PYLORUS.

By JAMES KERR LOVE, M.D., STRATHBUNGO.

THE following case of cicatricial contraction of the pylorus is, I think worth recording, because of its great duration and because I am fortunately able to give a pretty complete history of the symptoms, and an account of what was found at the pylorus after death.

Mr. R., a gentleman aged, at his death last month, 60 years, enjoyed good health till within the last 8 or 9 years. He was an active, sprightly man, of regular habits. Eight or nine years ago he began to have, during the winter chiefly, "very bad bilious attacks." These were characterised by intense pain over the epigastrium and by vomiting. They usually passed off in about a fortnight. Five and a half years ago (in November, 1883) he had one of these "bilious turns." Instead of passing away as usual, this continued during the entire winter with acidity, gastric pain (chiefly in the evenings), and vomiting at intervals, with constipation. Dr. M'Kim, of Kelvingrove Street, treated him during that winter. The vomit was constantly sour, but there was no bleeding during this period. In May, 1884, however, there was a large bleeding from the stomach, amounting, along with the accompanying contents of the stomach, to over two quarts. This was followed by a period of increased weakness, and by marked emaciation and paleness. Gradually the patient's strength returned, and he was able to walk about during the summer of 1884. The gastric symptoms also improved, but did not disappear; there was always the sourness, the occasional pain, and some vomiting. There was not, however, any great distention of the stomach or intestines.

In July, 1885, a second bleeding took place, followed by another period of emaciation and weakness. Again in a few weeks the patient was very much the same as this bleeding found him, suffering from acidity, occasional vomiting of large quantities of sour-smelling liquid, inability to take solid food, and severe paroxysms of pain in the umbilical and right hypochondriac regions. This pain was much increased by his lying towards the right side. After 1885 he was seldom out of bed, the fatigue involved by dressing being too much for him. He steadily grew thinner till 1886, during which year there was no bleeding.

The spring of 1887 found him little changed. Perhaps the

tendency to constipation increased, and nearly all laxatives employed had to be aided by large enemata. The acidity was also greater, and no food seemed to suit him. About this time, too, the pain in the hypochondrium became so great that the patient had to be relieved occasionally by morphia. The necessity for this mode of relief soon became habitual. In the summer of 1887 he had a third, and this time a very large bleeding, which left him much weakened and even further emaciated. He again recovered wonderfully, and, although seldom able to leave his bed, he was often bright, and interested in current events. The necessity for morphia increased. Till 1888 it had been used every second or third day, but during the last year of life the dose was about a grain daily.

About the beginning of 1888 the stomach and bowels became distended and this never disappeared. Before this time the abdominal surface was flat or even concave; after this time it was convex, and, when he sat up, almost pendulous. The abdominal organs contained large quantities of fluid, which greatly annoyed the patient. On shaking him when he was horizontal, the characteristic jumbling noises were heard. He became less able to take the very limited diet which he found suited him best, the emaciation and weakness increased, and he died of exhaustion on 2nd May, 1889.

The diagnosis was the subject of some doubt during the early stages of the case. Till 1885 Dr. M'Kim had the sole charge of the patient, except when bleeding or other emergencies caused the patient to ask for nearer help. After 1885 I had an active share in the treatment, along with Dr. M'Kim, who found it difficult, on account of distance, to give Mr. R. all the attention he required. Dr. Gairdner, Dr. Finlayson, Dr. Mather, Dr. Tennant, Dr. Gemmell, and other consultants saw the patient. Some of these gentlemen regarded the case as one of malignant disease of the stomach; others looked on it as non-malignant; but all located the disease at or near the pylorus. Both Dr. M'Kim and myself ultimately gave up the idea of malignancy, because of the great duration of the symptoms, and of the absence of any palpable tumour. The physical signs were all along somewhat indefinite. There was generally almost uniform tympanitis, with patches of dulness varying from day to day with the amount and position of the fluid in the stomach and intestine. There was the splashing on shaking the body of the patient. There was almost constant vermicular movement of the stomach and bowel seen through the thin abdominal wall, but palpation gave no very

definite information. Dr. Gemmell in 1887 thought he felt an enlarged pylorus, and at some examinations I was inclined to think I made this out, but the distention was usually too great to allow the fingers to dip deeply enough towards the pylorus. The heart and lungs were sound, and the urine free from albumen, but pale, copious, and of low specific gravity.

In describing five and a half years of treatment, it would be easier to name what had not, than what had, been tried; but no single medicine did very much for the patient except morphia. This was first tried by the mouth, to relieve the gastric pain, then hypodermically, and ultimately was given only by suppository. He could not stand the prick of the hypodermic needle. Laxatives were used, and did good sometimes, but he depended chiefly for the moving of his bowels on the use of enemata. Amongst antacids, the sulphite of soda and the oxide and carbonate of magnesia were found very useful. I attempted to wash out the stomach, but although the tube was repeatedly got into the organ, he was too nervous to let me persist in the treatment. No actual bedsores formed, but great care was needed to prevent this, and one of the patient's most distressing symptoms was pain in the bony prominences, particularly in the great trochanter of the left side. The selection of suitable dietaries was very difficult. Simple water and oat-flour gruel seemed to suit him best. Until within a few months of his death he was able to eat a boiled egg. Milk dishes did not do well with him. All kinds of prepared meat-jellies and soups were ultimately discarded. Peptonising his food did no good. Many dishes he merely sucked, putting out the solid residue. Stimulants, unless in very small quantity, did harm.

After death Dr. M'Kim and I opened the abdomen, and examined the organs within reach. The liver was healthy. The stomach and bowels were not nearly so much distended as during life.

The stomach and duodenum were removed and sent to Dr. Lindsay Steven, from whose report the following statement is drawn up:—

"The stomach is not dilated as a whole, but its wall, especially near the cardiac end, is considerably hypertrophied. The pylorus is evidently very much contracted, and with difficulty passes the point of the forefinger. There seems to be considerable cicatricial thickening of the tissue forming the pyloric orifice, but there is no tumour. On opening the organ it is found to contain a considerable quantity of coffee-ground material, but no ulceration of the mucous membrane

is visible at any part, although the mucous surface, especially near the pylorus, has a red, swollen, velvety appearance, suggestive of pretty active catarrh. It is observed that at the pyloric end the mucous membrane is smooth and velvety, and has no rugæ, whilst at the cardiac extremity the rugæ are most marked, and the walls are considerably thickened—the inference being that the cardiac portion of the viscus had hypertrophied in the attempts to pass the gastric contents through the contracted pylorus, and that the pyloric region had dilated to some extent owing to the obstruction.

“*Diagnosis.*—Cicatricial contraction of pylorus, probably the result of old simple ulceration near that orifice.”

Remarks.—Perhaps the most important points in connection with this case are its duration, the nature of the bleeding, and the absence of any well defined tumour. Cases of malignant disease of the stomach hardly ever run a course of more than two years, sometimes three, generally only one. The long duration in this case (five and half years) was an important point in suggesting the cause as simple ulceration. The bleeding in malignant disease is generally a slow oozing, giving rise to the so-called coffee-ground vomit. In this case there was nothing of this kind, but three large gushes of blood, separated from each other by periods of one or two years. The most careful palpation gave no evidence of a definite, nodular, growing tumour, such as can usually be made out in malignant disease near the pylorus; but ulceration near this orifice must be looked on as a most serious condition, not only from the possibility of dangerous bleeding, but from the tendency of the healed ulcer to narrow or altogether obliterate the pylorus. The ulceration in this case was probably the result of a series of attacks of gastric catarrh, regarded by the patient as nothing more than “bilious attacks.”

A CASE OF CONGENITAL STENOSIS OF THE PYLORUS IN AN INFANT.*

By WM. K. PEDEN, M.B., C.M.

THE following case of congenital stenosis of the pylorus in an infant I thought of sufficient interest to bring under your notice :—

* Shown at the Glasgow Pathological and Clinical Society, 13th May, 1889.

To judge from the literature of the subject, the condition is not of frequent occurrence. Ziegler refers to it as more frequent than atresia, but says nothing of the pathology of the malformation: Ewald also mentions it in its relation to dilatation of the stomach, but has nothing further in this regard. Two papers, however, treat the subject more fully; one by Landerer "Ueber angeborene Stenose des Pylorus" (Inaug. Diss., Tübingen, 1879), and the other by Maier "Beiträge zur angeborenen Pylorus Stenose" (*Virchow Archiv*, Bd. 102, s. 413).

Clinically, the case was one of persistent vomiting beginning three days after birth, in a healthy, exceptionally well developed child, and terminating fatally at the end of the third month. There were during all this period no symptoms of catarrh—the tongue remained clean, the breath sweet, and the vomited matter consisted only of the food taken. The bowels were confined, but not markedly so.

At first I was inclined to regard the case as one of vomiting, so common in children where the milk supply is plentiful, and in this relation it may be well to mention that the three previous children were all great vomiters; the mother, however, persisted in regarding the vomiting as something more than usual. About the fifth week I got alarmed at the condition of the child, it had emaciated so much, and blamed myself for allowing a vicious habit to be contracted.

The usual treatment, lessening the breast milk, and finally withdrawing it, giving whey, cream, and meat juice in small quantities, chloral, &c., proved unavailing, all being rejected after a certain amount had collected in the stomach; till finally deciding that there must be some organic trouble, I allowed the child to get Carnrick's food as often as it cared to. This, of course, was rejected in an hour or so, but one had the satisfaction of seeing the child occasionally satisfied.

There was no evident dilatation of the stomach, and no tumour could be felt.

The features of clinical and diagnostic importance were the persistence of the characteristic vomiting, a large drink being always rejected, while small quantities were retained till a certain amount had collected; the onset of vomiting coinciding with the establishment of lactation, and the absence of any symptoms of catarrh or of marked dilatation of the stomach; this last fact being accounted for by the ease with which vomiting occurs in infants.

The stomach was examined for me by my friend, Dr. Maxwell Adams, and the following is the summary of his report.

I may say in passing that on removing the organ, it gave me the impression of being larger than one would expect in an infant, the pylorus lying fully $\frac{1}{2}$ -inch to right of middle line.

Extending from the pylorus into the stomach, and exactly implicating the rounded straight portio pylorica of the infantile organ was a stiff sausage-shaped thickening of the part, reducing the lumen of the canal to about 5 mm.

Section of the stomach along the greater curvature showed the hypertrophied portion as beginning gradually in the stomach walls, ending abruptly at the pylorus in a ball-shaped knob which projected freely into the duodenum. The lumen of the canal was further narrowed by two longitudinal crest-like projections extending along the whole length of the hypertrophied portion. The cardiac portion of the stomach was covered with a mucous coating, and hardening reagents revealed a thin greyish reticulated exudation covering the pyloric tract.

Hardening and staining of a piece removed from the thickened part gave the following results:—

The thin reticulated exudate was seen to be composed of cells evidently derived from the central pyloric gland cells by a multiplication and shedding; here and there those cells distended a gland duct forming a rounded mass the seat of mucous degeneration—at least the clear refractile substance was not coagulated by alcohol, but swelled and disappeared under water. These patches of mucous (not mucoid) degeneration were rare.

The muscular submucosa seemed to have undergone a slight proliferation, and was here and there plentifully sprinkled with small round cells.

The *submucosa* was enormously thickened, and composed of finely formed fibrous tissue, arranged in a reticular fashion, having lost in many places its normal circular disposition. The *blood-vessels* of the submucosa were numerous and enlarged.

The *circular muscular fibres* showed marked hypertrophy, though not quite equal to that of the submucosa. Under low power certain areas of the muscular fibres had a dull homogeneous ground-glass appearance, while others presented a more reticulated aspect. Higher power proved the dull areas to be composed of normal muscular fibres, seen on cross section, but the reticulated portion presented at first sight a puzzling appearance; and only after examining many sections was it shown to be due to enormous hypertrophy of each individual muscle cell giving the appearance, roughly

speaking, of a large nerve fibre, seen on cross section—the nucleus was central and enlarged, the periphery of muscle cell had a large coarse fibrous-like outline; some of the cells were not so hypertrophied as others; pressure caused them to take a hexagonal shape, and being so strongly outlined, gave the reticulated appearance mentioned.

Considerable hypertrophy of the submucosa with a like condition, though perhaps not so marked, of the inner muscular layer, produced the stenosis. The outer muscular coat and peritoneum were normal.

The malformation, Dr. Adams considers, may be looked on as a vice of developmental growth. After the individual tissues are first formed by proliferation from their genetic cells, they undergo a process of enlargement till they attain their proper size; here the process had gone beyond its usual limits. There were no indications of chronic inflammatory change.

I have not been able to see Landerer's Thesis on "Congenital Stenosis of the Pylorus," but the article by Maier, in *Virchow's Archives*, considers this malformation in its causal relation to dilatation of the stomach. Maier holds that a degree of congenital stenosis is a frequent, if not the most frequent, though unrecognised, cause of this condition, and cites a number of cases, mostly in adults, of chronic catarrh of the stomach with dilatation, in which stenosis of the pylorus varying from 3 mm. to 1 cm. (the normal 1 to 3 cm.) was found. He is careful to distinguish between this congenital form and that due to catarrh, ulcer, &c., the acquired form of stenosis, and gives his reasons for considering the stenosis primary and the catarrh secondary in the cases mentioned. He acknowledges, however, that clinically the distinction is extremely difficult.

Basing his classification on the anatomical structure of the pylorus, he distinguishes between a simple form of stenosis, in which there is a round or slit-like narrowing of the pyloric orifice, and a complicated form, due to a hypertrophy of the longitudinal or of the circular fibres of the pyloric region. In the first case, where the longitudinal fibres are hypertrophied, the stenosis is usually conical in shape, with the apex of the cone at the pylorus and projecting into the duodenum, after the manner of the os uteri into the vagina, but sometimes it is ring-like, the constriction then measuring as low as 4 to 5 mm. When the circular fibres, on the other hand, are increased, the form taken is usually that of a thick swelling, the lumen of the canal not being so much reduced as in the former case. There may also be a ring-like constriction.

The stenosis in this case must be considered as belonging to the last category.

Its interest lies in its proving conclusively that congenital stenosis does occur, and that it may be considered one of the causes, in its lesser degrees, of catarrh of the stomach and dilatation. It may also explain many of the cases of persistent vomiting set down to a vicious habit. Might not the frequent vomiting in the three previous children be in part accounted for by some tightness of the pylorus?

CURRENT TOPICS.

ST. MUNGO'S COLLEGE, GLASGOW.—REGISTRATION LICENSE GRANTED BY THE BOARD OF TRADE.—The Board of Trade on the 16th April, 1889, granted a license for the registration of St. Mungo's College, under the provisions of the 23rd section of the Companies' Act, 1867. Permission is thus given to the promoters to obtain the incorporation of their association without the customary obligation of using the word "limited" after its registered title. The promoters of the college sought last year to attain their object by means of a bill introduced into the House of Commons for the purpose of "establishing in the east end of Glasgow a college of the University of Glasgow, to be called St. Mungo's College." This bill was opposed by the University, and at an interview which the promoters had with Lord Lothian, his lordship pointed out three methods by which incorporation could be obtained for the proposed college. Registration under the Companies' Act was chosen by them as the simplest and least expensive of these methods. A memorandum with articles of association was accordingly prepared by Messrs. H. & R. Lamond & Lang, and submitted to the Board of Trade for approval.

During the necessary preliminary formalities, as was to be expected, the Senate of the University represented to the Board of Trade that names of University authorities and officials had been introduced into the articles of association without warrant, and in such a way as to convey the impression that the application had the sanction of the University. The managers of the Royal Infirmary and other promoters of the St. Mungo's College, in no way abashed at the strictures of the Senate, replied in detail to the professorial protest, showing that it was of "courtesy" rather than of "necessity" or

expediency" that they proposed to have representation from the University on the board of the college, and that after all, "while the college remains unaffiliated to the University, it may be more convenient that the University should have no voice in its management."

In all this there is an undercurrent of animosity and vituperation on the part of both bodies, which to the intelligent outsider would be very amusing, were it not that he is convinced that in the discussion of a question so vital to the commonweal there should be no room for such feelings. We much desire to see this whole question amicably and rationally argued out, and finally settled in a manner absolutely fair and satisfactory to all concerned. The University, as a national institution existing as much, nay, even more, for the welfare of the community as for that of its teaching and other authorities for the time being, can gain nothing by falling back on its strongholds of papal bulls and vested rights; nor will it be at all to the advantage of the governors of the St. Mungo's College to regard professors as mere upholders of privilege and drawers of fees. An intelligent and discerning public is apt to estimate either position at its true value. We want a calm, dispassionate, *impersonal* discussion of the points at issue, such a discussion as is likely to result in a settlement, which will be of special benefit, neither to University professors nor St. Mungo's College promoters, but to the youth of this Scottish nation, who were recently addressed as "not merely the inhabitants of a small island in the Northern Seas, but members of a mighty empire and scions of a ruling race."

There can, we think, be little doubt that the main battle of the St. Mungo's College, and of the affiliation question generally, in coming legislation, will be fought on the field of medical teaching—and as regards Glasgow at least, of practical and clinical teaching. While we freely grant that existing rights must be jealously guarded, and that no injustice to individuals should be done in the name of reform, we must, on the other hand, admit, that as regards the practical side of medical education at least, there is a good deal to be said for the position taken up by the Royal Infirmary authorities and those who act with them. Systematic medical instruction can be imparted with as good effect to 200 as to 20 students—perhaps with even greater effect to the larger number. The same cannot be said of practical and clinical instruction. In all such teaching there must, from the very nature of the case, be a definite relationship between the material available for practical study, and the number of men desirous of engaging

in it. Justice demands that each member of a practical class should have an equal opportunity with his neighbour of engaging in the practical work of that class, and unless the proper relationship between material and students be maintained, this can hardly be accomplished. If the University reformers can show that there is an absence of this proper relationship between available clinical and practical teaching material and the number of students seeking practical instruction, then they have made out a strong point in their case.

The following are some of the objects for which the St. Mungo's College has been incorporated:—

III (1).—"The institution and maintenance in Glasgow of classes for higher education; the absorption and continuance as part of St. Mungo's College of the Glasgow Royal Infirmary Medical School; the teaching and instruction of students in science, literature, art, law, and divinity, and learning of every description by lectures and otherwise; the establishment and maintenance of laboratories, museums, and libraries; and the advancement and encouragement of these objects, or some of them, by the giving of prizes, and the creation of exhibitions, scholarships, and fellowships."

III (7).—"To amalgamate or affiliate, either wholly or partially, with or to any society, association, or educational or other institution, all in such manner and upon such conditions as may be determined upon."

Under III (9) it is provided that "The association shall not grant, or profess to grant, degrees or professional licenses, nor grant or profess to grant certificates similar to those granted by universities established by Royal Charter or Act of Parliament;" and under IV, that no dividend or bonus shall be paid, directly or indirectly, to members unless they are teachers or servants.

The affairs of the association shall be managed by the following persons, who shall be called governors, and who shall constitute the association, namely:—The first principal of St. Mungo's College shall be Walter Graham Blackie, LL.D., 1 Belhaven Terrace, Kelvinside, Glasgow, and he shall hold office until the third annual meeting of the college. The following persons shall be the governors on behalf of the respective bodies to be named until the third annual meeting of the governors:—On behalf of the Town Council of Glasgow—William Maclean, Jun., 93 West George Street, Glasgow, and Archibald Neilson, L.R.C.P., Edinburgh, and L.F.P.S.G., 10 Somerville Place, Glasgow; on behalf of the Merchants' House of Glasgow, Robert Gourlay, banker, St. Vincent Place,

Glasgow; on behalf of the Trades' House of Glasgow, Robert Peel Lamond, 93 West Regent Street, Glasgow; on behalf of the School Board of Glasgow, Thomas Russell of Ascog, in the county of Bute; on behalf of the Chamber of Commerce of Glasgow, David Guthrie, 9 Park Circus Place, Glasgow; on behalf of the Faculty of Physicians and Surgeons of Glasgow, James Morton, M.D., 199 Bath Street, Glasgow; on behalf of the Faculty of Procurators of Glasgow, James Robertson, LL.D., 176 St. Vincent Street, Glasgow; on behalf of the Managers of the Glasgow Royal Infirmary—Sir James Bain, 3 Park Terrace, Glasgow; Hugh Brown, 7 Claremont Gardens, Glasgow; Robert Gourlay, 35 Buchan Street, South Side, Glasgow; David M'Cowan, Royal Exchange, Glasgow; William M'Ewen, 17 St. Vincent Lane, Glasgow; Samuel Marks, 145 Great Eastern Road, Glasgow; John Miller, Dalfruin, Kelvin-side, Glasgow; David Caldwell M'Vail, M.B., 3 St. James' Terrace, Hillhead, Glasgow; and James Bell, shipowner, Union Street, Glasgow. At the said third annual meeting the above named persons representing the said respective bodies shall retire from office, and their places shall be supplied by election by the said respective bodies, the persons elected holding office for three years, and thereafter on the expiration of each succeeding period of three years the said respective bodies shall again elect their respective representatives. The governors to be elected by the said respective bodies may be chosen out of their own number or otherwise, and they shall be eligible for re-election.

The governors take powers to accept legacies and donations for exhibitions, scholarships, fellowships, and professorships; and it is provided that all professors, lecturers, and teachers shall be appointed annually upon such conditions as the governors may think fit. Any of these may also be removed, upon a fortnight's notice, by a vote of not less than two-thirds of the governors.

THE SALE OF DISEASED MEAT IN GLASGOW.—It is sincerely to be hoped that the free discussion which this subject has been receiving in the pages of the *Glasgow Herald*, and the popular attention which has thus been strongly directed to the matter, may result in several apparently very necessary reforms. From what has been made public, it would seem that in the matter of stringency of inspection of butcher-meat, Glasgow lags behind other Scotch and English towns—a state of matters by no means creditable to the second city of the empire; and the term “cesspool,” as applied to the Glasgow

meat market, is by no means calculated to arouse lofty feelings in the breasts of our citizens.

Of course, the part of the discussion most directly interesting to the medical reader is the question as to whether the presence of tuberculosis renders a carcass unfit for human food. We have not the slightest hesitation in saying that it does, that no animal suffering from tubercular disease, however slight or apparently localised, should be used as food for man. We do not wish to raise the question as to whether any unsound carcass, no matter what the disease may be, is fit for human food, because we believe that perfectly legitimate arguments might be advanced to prove that under certain circumstances a diseased carcass might be eaten with safety. With regard to tuberculosis, we do not think that any valid arguments can be advanced. Tuberculosis is an infective disease dependent upon a perfectly definite well known specific organism, and capable of involving the whole system, both in an acute and chronic general form; it may be communicated from man to man; and, unfortunately, there is every reason to believe that it may be transmitted to him from the lower animals. Under these circumstances we can conceive of no argument capable of proving that any portion of a carcass, affected with a disease possessing these properties, can with safety be used as human food. With reference to leprosy, a disease in many respects similar to tuberculosis, we may mention that there are many most eminent authorities who hold that this disease is primarily originated in certain localities by the use of decomposing fish as an article of diet, and the fact that leprosy is at present most prevalent (in Europe at least) among fish eating people is rather confirmatory of this view. What then is to hinder tuberculosis being originated in a similar way, especially when it is considered that the consumers of tubercular meat are most likely to be those unfortunate members of the community who, from their poverty and their bad sanitary surroundings, are almost sure to be in poor general health, and thus offer a suitable soil for the growth of the deadly germs? We cannot help thinking that those who uphold the safety of partial condemnation and destruction of carcasses affected with tubercular disease in any form are taking upon themselves a grave responsibility as regards the public health, and are acting in opposition to the most recent teaching of scientific medicine and pathology.

There naturally also arises out of this discussion the question, still more important if possible, of the danger of human beings affected with tubercular disease to the public health.

There cannot be much doubt that individuals seriously affected with tubercular pulmonary disease, and having abundant purulent expectoration, are a constant source of danger, especially when closely associated with others in small houses, and we feel sure that the time will come when the question of the compulsory isolation of such individuals will fall within the range of practical legislation. To refer again to the case of leprosy, we must express our opinion that the almost complete disappearance of this formidable disease from Europe has been very largely due to the stringent isolation methods that were put into force in dealing with the malady.

THE LONDON CHARITY ORGANISATION SOCIETY AND THE PROPOSAL FOR AN INQUIRY IN REGARD TO THE ADMINISTRATION AND COMMON ORGANISATION OF VOLUNTARY HOSPITALS AND DISPENSARIES AND POOR-LAW INFIRMARIES AND DISPENSARIES, BY A SELECT COMMITTEE OF THE HOUSE OF LORDS.—We have much pleasure in acceding to the request of Mr. C. S. Loch, the Secretary of the London Society for Organising Charitable Relief and Repressing Mendicity, that we should draw the attention of our readers to the proposed inquiry on the above very important subject by a Select Committee of the House of Lords. Our readers are aware that quite recently in the Glasgow Medico-Chirurgical Society, and in the pages of the *Journal*, this question has been very fully discussed in all its bearings, and it will no doubt be interesting to them to know that a similar discussion is going on in the metropolis. In the draft of the proposed petition to the House of Lords on behalf of the London Charity Organisation Society much valuable information as to the condition of the metropolitan hospitals is contained, and readers who are specially interested in the question will no doubt be able to obtain copies of the petition from Mr. C. S. Loch, Secretary, 15 Buckingham Street, Adelphi, London, W.C. In the petition the metropolitan hospitals are classed as endowed, voluntary, and poor-law institutions; and information is given as to numbers of in- and out-patients, and the revenue of each. Thus we learn that in the metropolis there are eleven general hospitals, with schools attached, and that the in-patients in these hospitals for 1887 numbered 44,364, and the out-patients 551,663. Three of these hospitals are known as the great endowed hospitals—viz., St. Bartholomew's, St. Thomas's, and Guy's Hospital. In 1887 Guy's found it necessary to raise by voluntary contributions a fund of £100,000, and in the same year the expenditure of St. Thomas's was £7,055 in excess of its income. With

regard to the eight remaining hospitals, it may be estimated that the annual expenditure exceeds the income by about £51,700. Similar facts are stated with reference to the eight general hospitals and sixty-seven special metropolitan hospitals which have no schools attached. In addition to the voluntary hospitals, it is shown that there are twenty-seven poor-law infirmaries and forty-four poor-law dispensaries in various parts of London. At these dispensaries in 1887 10,342 patients were on the permanent medical list, besides other cases in which 116,267 orders were granted. The petition then goes on to point out the defects, which touch very diverse, complex and powerful interests, in the present administration of medical relief in London. These defects are the real reason of the present petition, but the list is too long for us to do more than notice one or two. Thus we read that (2) the indiscriminate admission to the benefits of hospitals and dispensaries tempts many who could pay for medical relief to become occasional recipients of charity, and by degrees habitual paupers; (6) by the multiplication of gratuitous and part-pay institutions, and the absence of regulation or organisation, those medical men whose practice lies among the poorer classes are year by year more severely hampered in making a livelihood; (7) there is a keen and continuous competition between hospitals, which spend year by year sums considerably larger than their average income would justify, and are thus driven to resort to all manner of contrivances to meet their liabilities; (8) year by year also new hospitals are (sometimes under very doubtful auspices) established for the treatment of special diseases without any reference to the provision already available; (10) there is no uniform system of keeping and publishing accounts.

In addition to the petition from which we have just quoted, we have also received a lengthy document, entitled, "A Memorandum on the Medical Charities of the Metropolis,"* containing, among other things, a tabulated summary of the general and financial position of the metropolitan hospitals, and notes and extracts from recent papers and articles bearing on the question of a special inquiry.

In this memorandum we notice a lengthy reference to Dr. Sutherland's paper on the breakdown of the hospital system, which appeared in the *Glasgow Medical Journal* for November and December last.

We also read that special hospitals may be divided into "three classes, those established from humanitarian, and those

* This document, price 1s., may be obtained from the Secretary.

established from scientific reasons, and proprietary special hospitals. . . . Of the proprietary hospitals several are founded by persons who have no sort of claim to special knowledge or scientific distinction, and such are mere nuisances withdrawing money from useful institutions, and applying it to institutions that do not possess a single legitimate claim upon the public."

From what we have written, our readers will admit that the London Charity Organisation Society has made out a strong claim in favour of a select committee on hospitals being granted by Government, and we hope that their labours may result in beneficial reforms.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—At the last meeting for the Session, held on Monday, 14th May last, the following gentlemen were elected office-bearers for the ensuing Session :—

<i>President,</i>	.	.	PROF. W. T. GAIRDNER, M.D., LL.D.
<i>Vice-President,</i>	.	.	DAVID NEWMAN, M.D.
<i>Treasurer,</i>	.	.	J. B. RUSSELL, M.D., LL.D.
<i>Editorial Secretary,</i>	.	.	J. LINDSAY STEVEN, M.D.
<i>Secretary,</i>	.	.	A. ERNEST MAYLARD, B.S.

Other Members of Council.

T. S. MEIGHAN, M.D.		JAMES FINLAYSON, M.D.
HENRY E. CLARK, M.R.C.S.		J. CRAWFORD RENTON, M.D.

Professor Gairdner and Dr. J. B. Russell were also elected representatives of the Society on the Council of the International Congress of Hygiene and Statistics for its next meeting in London.

PATHOLOGY IN THE ARMY MEDICAL SCHOOL, NETLEY.—Dr. D. Bruce, of the Army Medical Staff, who has greatly distinguished himself by his discoveries in microscopical anatomy, has been joined with Sir William Aitken as professor of pathology in the Army Medical School. Dr. Bruce, it is stated, is to undertake all the practical work, but Sir William Aitken will continue to give a lecture on the subject every week during the session of the school.

"STUDIES IN CLINICAL MEDICINE."—Such is the title of a new periodical publication which is to be issued every fortnight during the summer and winter sessions by Dr. Byrom Bramwell, one of the most enterprising of the clinical teachers of the Edinburgh School. The venture, although founded on the

plan pursued by Charcot, is a novel one so far as this country is concerned, and we would not be surprised if it proved to be a success. That the undertaking is an arduous one there can be little doubt, but if it is well and ably carried through it may prove of considerable value. As the first number has been sent broadcast over the profession it is unnecessary that we should allude to its contents. However, we would say that a man must feel pretty confident of himself who can afford to have all his *extempore* statements in the out-patient room reported *verbatim* by a shorthand writer, especially when the statements concern from 16 to 20 *new* patients in the space of three hours. We think, too, that the author's clinique is too large for the clinical instruction to possess the necessary *practical* value. To save himself the teacher has to engage in talk; now in the dispensary of all places unnecessary talk is out of place: the out-patient room is essentially the sphere for practical work, and this can only be accomplished by a limited number of students. It is not enough in the dispensary that the student should see the physician examine a case, hear his opinions on physiognomy, diagnosis, and prognosis, and take down his prescriptions. Dr. Bramwell is not at all "convinced that it would be better—to allow each student in turn to auscultate and percuss a patient;" we are decidedly convinced that it would, though it may perhaps not always be practicable. With this exception, we think the mode of teaching adopted by Dr. Bramwell is most valuable, and we have ourselves all along followed a similar plan in out-patient clinical teaching.

HOFF'S EXTRACT OF MALT.—We are informed that this preparation of the Extract of Malt, which is now so well known, has been awarded the first order of merit at the Exhibition at Melbourne.

DR. WARD COUSINS' RECTAL INJECTORS.—We have received from Messrs. Burroughs, Wellcome & Co. specimens of these instruments, and they seem to be well fitted for the objects for which they are intended. We have tried the glycerine injector in out-patient practice, and found it to answer well. The other instrument is a neat little vulcanite apparatus, devised for introducing ointments within the anus. Both instruments are supplied in convenient boxes, and are easily portable.

CORRESPONDENCE.

AMPUTATION THROUGH THE FOOT.

To the Editors of the "Glasgow Medical Journal."

TOLEDO, OHIO, U.S.A., 6th April, 1889.

SIRS,—I see quoted in the last number of the *American Medical Association Journal*, a paper from your *Journal* of March, describing Dr. "Milroy's Medio-Tarsal Amputation." It is called a new amputation.

I enclose to you a paper read before the Ohio State Medical Society by myself in 1874, describing a somewhat similar amputation, only that Milroy removes the cuboid, while in mine that bone is sawn squarely across, leaving the posterior half with its tubercle on the under surface, thereby securing a more presentable, as well as a more useful stump. This operation is taught in many of our medical schools, and mentioned in many of the text-books on surgery. If Milroy's operation is worthy of mention, so is mine, as being the better, as well as the earlier. I made it first in 1863, during the War of the Rebellion in this country.

I am something of a Scotchman myself, my great grandfather having been born at Aberdeen.—Yours truly,

S. F. FORBES,

President, Ohio State Medical Society.

The following are the principal parts of Dr. Forbes' paper:—

"Partly from design and partly by accident I have hit upon an operation which may very properly, I believe, take the place of both Hey's and Chopart's operations. After having done this operation a number of times, I find it much easier of execution than either of the last named operations; and while it leaves a stump quite as useful as that resulting from Hey's, it gives a much better stump than results after Chopart's operation.

"It is always practicable where Hey's is, and almost always can be done where Chopart's can.

"The steps of this operation are briefly as follows:—The flaps being made as in Chopart's operation, that is by an anterior and posterior flap, one horn of which should commence on the inner side of the foot, opposite the tubercle

of the scaphoid bone, and the other terminate on the outer border or tubercle of the cuboid, and the flaps being well reflected back, the knife, a stout, straight bistoury, should be entered between the scaphoid behind and the internal cuneiform bone in front, and carried outward between the cuneiform bones and the scaphoid, until the cuboid is reached. Twisting the foot well outward with the left hand of the operator will facilitate the movement of the knife along the articulations mentioned. Having arrived at the cuboid, the knife should give place to the saw, when the cuboid should be sawn squarely across, and the operation is completed. Should any difficulty be experienced in passing the knife along the external cuneiform, the saw can at once be resorted to, and any portion of this bone which may be left in the stump can readily be dissected out.

"In the foregoing I have presumed that both flaps have been made before the division of the bones is begun. If the operator prefers, only the anterior flap need be first made, but the incision for this, in this case, should be carried well outwards over and down on the outside of the foot, so that the saw should not engage the soft parts in that vicinity while the division of the cuboid is going on. The posterior flap can now be made, as in Chopart's operation, from the sole of the foot.

"In Chopart's operation the difficulty of execution is mainly in consequence of the very deep concavity of the scaphoid bone behind, whereas in the operation I am describing, the operator meets only its almost plane front surface.

"By examining the bones of the foot, it will be seen that where the scaphoid and a portion of the cuboid is left in the stump (as in this operation I am describing), each bone has a bold prominence or tubercle on its under surface, which is of great service to the patient in walking ever after—a point not to be lost sight of by the surgeon.

"The claims of this operation over Hey's and Chopart's are, that it is more easily performed than either of them, that the stump is quite as good as that left after Hey's, and much better for the purpose of walking than follows Chopart's operation.

"I hope I may be pardoned for trespassing a moment on your time, while I speak of flaps and treatment of the limb after these operations. The flaps are most conveniently and best made from the dorsal and plantar surfaces of the foot. But sometimes these portions are almost entirely destroyed, as in gunshot wounds, where the muzzle of the gun was rest-

ing on the instep at the time of explosion. In such cases I have made very successful coverings for the stump from one or both of the lateral surfaces of the foot. In other cases, from the plantar or dorsal surface only, and occasionally from shreds and patches obtained from anywhere in the vicinity. And in still other instances I have got along with scarcely no flaps at all, in consequence of sloughing (which I had anticipated owing to injury), and had granulation and cicatrization complete the work in due time in a very satisfactory manner. In a word, I would sacrifice just as little of the bony column—a permanent and necessary structure for future use—to the temporary want of covering, as the circumstances would allow, especially in young and healthy subjects.

“By proper treatment of the limb after any of these operations through the tarsus, a better result will be obtained than if such treatment be neglected. The patient should lie upon either side, with the limb flexed both at the hip and knee, and as often as may be, upon his back, with his knee bent and well elevated, with the heel sustained upon quite a firm pillow. This position is a natural and easy one, and serves the double purpose of keeping the heel well forward, and affords a change of position to the patient.

“This idea of keeping the heel well forward should not be lost sight of as soon as the healing of the wound is accomplished, but for three or six months after, the patient should wear a splint, which I believe to be of incalculable advantage to him in his future life. In cases where the retraction of the heel is very difficult to overcome the tendo-Achillis might properly be divided.

“During the last few years after all of these operations through the tarsus, and before the patient begins to go upon his stump, I have had prepared a straight splint of hickory wood, hollowed slightly to receive the heel at one end and fitting the calf neatly above, being somewhat elastic and padded. Then, after snugly bandaging the stump and leg, I apply the splint behind the leg, with the heel well brought forward, as firmly as the patient can bear it. Over this a sock may be drawn, and with any kind of a shoe the patient may begin gradually to go about. Of course the splint should be removed at night, and reapplied again in the morning. In a very few days the patient learns the assistance which the splint affords, and will have it applied before he attempts to move around. From three to six months is the period which the splint is worn, when doubtless the structures in front of the ankle divided in the operation are sufficiently healed and

solidified, and contraction having occurred, so that they are able to antagonise completely the tendo-Achillis behind, and the patient feeling this sense of security, lays his splint aside. By this care in the after-treatment, I have seen most excellent results even where the foot has been divided behind the line of Chopart's operation; that is, where portions of both the astragalus and os calcis, owing to injury, were of necessity removed.

"In all these operations, whether Hey's, Chopart's, or the one I have been speaking of, relatively better results will follow if this care is taken in the after-treatment. There are several persons in this vicinity upon whom the operation I have spoken of has been performed, when wearing an ordinary shoe with the front filled with cork, whose gait and carriage are so steady that it would be quite impossible for even a surgeon to say upon which limb the operation had been performed. These persons engage in railroading, farming, &c., without crutch or cane, and with so little inconvenience, apparently, as not to notice that they have suffered any loss."

To the Editors of the "Glasgow Medical Journal."

KILWINNING, 25th April, 1889.

SIRS,—When I exhibited my medio-tarsal amputation at the April meeting of the Glasgow Medico-Chirurgical Society I laid no claim to originality in the operation, but rather the reverse. I then said that such an operation was not taught in our Scottish Schools or mentioned in our text-books, but that it might possibly have been performed hundreds of times for aught I knew. I only looked upon it as a common sense surgical procedure in which I did not follow out the modern teaching of, "If you can't make a Lisfranc, make a Syme." I therefore exhibited the young man to show that the dogmas of medical schools are not always correct. I am not the least surprised to find by Dr. Forbes' letter and paper that the Americans are ahead of us. I certainly congratulate Dr. Forbes on having introduced an operation which, he says, "is now taught in many of the medical schools of America, and mentioned in many of the text-books on surgery." I was quite ignorant of his operation until I received, through Dr. Coats, the above paper.

There are several points, however, about this new American operation with which I cannot agree. The Doctor says that his method of procedure "secures a more presentable as well

as a more useful stump" than mine. In answer to this statement, the favourable remarks of experienced hospital surgeons, present at the meeting when I exhibited my patient, bear testimony to the fact that the stump which my method procured was a most presentable one, and now that the man can walk twenty miles at a stretch with it, proves that it is a most useful one. Dr. Forbes, in his paper, says "that his operation leaves a stump quite as useful as Hey's, and that it may very properly take its place." In his operation the insertion of the tibialis anticus is lost, and more of the bony column, as he terms it, is sacrificed. I cannot therefore see wherein his operation should replace Hey's.

Again, Dr. Forbes uses, by preference, an anterior and plantar flap, or if these are wanting, shreds and patches from anywhere in the vicinity; or, in some instances, "scarcely no flap at all." Now, how can any surgeon get a good stump where the cuboid bone is sawn through with "scarcely no flap at all" to cover it? In all such cases, even with an anterior and plantar flap, I am bound to say the cicatrix will be on the under surface of the stump when healing is completed and the bones have taken up their proper positions. The Doctor recommends a hickory wood splint to be worn in order to avoid this, which proves that he has been having some trouble on the point.

Scottish surgeons consider that no medio-tarsal amputation is successful unless the cicatrix is well up on the back of the stump, and if this desideratum cannot be obtained it is far better to make a Syme at once. I maintain that, in medio-tarsal amputations, the cicatrix can only be got in this safe position by a long plantar flap such as I used. No mechanical arrangement, and certainly no hickory splint "worn for six months" will antagonise the coming down of the cicatrix. It is generally considered that the tendo-Achillis pulls down the cicatrix, but I believe that that tendon is more blamed than it should be. The cicatrix comes under in this wise. When that part of the foot anterior to the scaphoid is removed, a new and much shorter antero-posterior arch is left, in which the face of the scaphoid and the under part of the heel bone form the two ends of the arch. It requires a long time, probably years, for the scaphoid and heel bone to get properly fixed in their positions. During the time that this process is going on, the cicatrix comes down with the face of the scaphoid, to which it has got attached, and the tibia moves slightly backwards, so as to bring the weight of the body on to the keystone of this new arch. For this reason Chopart's

operation will always be a failure, as the astragalus has so far to come down that it will drag any cicatrix, however well placed, right under the stump. This will also happen in any form of medio-tarsal amputation, unless the end of the flap in the beginning be well up on the back of the stump. Dr. Forbes' operation may be superior to mine in so far as he saws through the cuboid, instead of disarticulating it as I did. The only objection I can have to this method is that very little of the cuboid is left, and is not likely to do well, especially when there are "scarcely no flaps at all to cover it." I would still prefer to disarticulate. I cannot go the same length as Dr. Forbes in advocating this medio-tarsal operation.

In my opinion his operation, as described by himself, with such flaps will, after the bones have become permanently fixed, give results very little better than Chopart's. It is only when he uses the long plantar flap as I have advocated that he will get results, after the test of years, which will be superior to Chopart's or Syme's, but still far inferior to Lisfranc's or Hey's. Such an operation as I described at the April meeting, improved perhaps by sawing through the cuboid, ought to be practised when possible in preference to Syme's or Chopart's, but the cases in which it can be properly applied are few indeed, as it is very seldom that a long plantar flap can be obtained.—Yours truly,

A. MILROY.

REPORTS OF HOSPITAL AND PRIVATE PRACTICE.

THE INFLUENCE OF HEREDITARY PREDISPOSITION IN EPILEPSY.

—[By William Russell, M.B., C.M., Paisley.]

I think it worth while recording the following case, as it shows in a high degree the marked influence of hereditary predisposition in cases of epilepsy. Three weeks ago I was sent for to see Mrs. — child, nearly ten months old, as it had taken a "fit." By the time I got to the house the fit was over, but the mother told me that it had been a very violent one. I ordered the usual remedies for such cases, and when I called the following day, was told that the child had had several more "fits" during the night. I could not find any cause for the convulsions, as there were no signs of pressure on the gums, the bowels were acting regularly, the stomach seemed in good order, and, so far as I could see, there were

no signs of brain mischief, This day, after having carefully examined the child, and when just going to take my leave, it took another fit, and I must say that it was a typical convulsion, lasting perhaps fully half a minute, and after the child came out of it, it fell into a sound sleep. After this it had no further attack, and seemed to be in good health till last Thursday (2nd May), when I was again sent for as the child had taken other two "fits" that morning. When I got to the house the child seemed in its usual health, as it was sitting playing in its cradle, and looking quite cheerful and well. There were still no signs of irritation in the gums, bowels, or stomach, and I must say that I was somewhat puzzled to know the cause of so many "fits." I asked the mother if any of her other children had ever any "fits" like this one; she said, "Yes;" then I managed to dig out of her the following curious history:—

Mrs. — says that both her husband and herself are natives of County Antrim in Ireland, but are not relatives. They are both 30 years of age, strong and healthy, and have been married 11 years. During that time Mrs. — has had six of a family. The two oldest children are girls, the third child is a boy, at her fourth confinement she had twins—a boy and a girl—and the last child is a boy who is at present 10½ months old; so that she has had three boys and three girls. Now, she says that her third child—a boy—took a "fit" when it was two years old; a year after that it had another attack, taking three "fits" in one night, and six weeks ago it had another. The next boy—that is, one of the twins—had a "fit" when it was 4 months old, and died eight days afterwards. The youngest child is also a boy, and up till now it has had two attacks of these "fits," one attack three weeks ago, and the next last week. None of the girls have ever had any "fits," and they look like strong, healthy children. The following further facts will, I think, show that there is a strong hereditary tendency for these "fits" in this family.

Mrs. — says that she has had nine brothers and three sisters. One of her brothers died a few years ago at the age of 21 years, and she says that he often found himself in the morning lying on the floor instead of in bed, and at such times he often complained of being all very sore; and she says that the family used to wonder at this. These were very likely "fits" that he was taking during the night. Another of her brothers, now 13 years of age, took a fit two years ago, and since then he has taken several; but, so far as she knows,

none of her other brothers or sisters have ever had any. Mrs. — further says that her husband has had five sisters and four brothers. Three of those brothers of his have taken fits now and again, but she is not aware of any of his sisters having had them. She also says that her husband has told her that before he was married he was much troubled by what she calls, "walking in his sleep;" and often he used to waken up during the night and find himself wandering through the house. Further, as showing how these "fits" are following this unlucky family, one of her husband's brothers who is not known to have had any "fits" himself was married three years ago. Now this brother has had two children born to him, both boys. The oldest is 2 years old, and as yet it has not had any "fits;" but the youngest, which is only 2 weeks old now, had a fit when it was only 8 days old. When I had got the foregoing particulars from Mrs. — I remarked that it was rather a curious history she had given me. "Yes," she said, "but I have still another curious thing to tell you, and that is this—when my oldest boy took his first 'fit' he was 2 years old, and it so happened that one of my brothers and one of my husband's brothers were in the house at the time the child took the 'fit.' Now the sight of the child in the 'fit' seemed to have impressed the child's two uncles so much, that the one after the other dropped down on the floor in a 'fit.' So," says Mrs. —, "there were three in the house at the same time all in 'fits.'"

You will see that the "fits" have only attacked the males of both families, the females so far as I can learn having escaped. The history altogether was so interesting as showing the hereditary tendency that I thought it worth while bringing it under the notice of the profession through the medium of this *Journal*.

REVIEWS.

Memoirs and Memoranda in Anatomy. Vol. I. By JOHN CLELAND, M.D., LL.D., D.Sc., F.R.S., Professor of Anatomy; JOHN YULE MACKAY, M.D., C.M., Senior Demonstrator of Anatomy; and ROBERT BRUCE YOUNG, M.A., M.B., C.M., Demonstrator of Anatomy in the University of Glasgow. London and Edinburgh: Williams & Norgate. 1889.

THE bulk of this volume (pp. 187) consists of papers on anatomy by Professor Cleland and his assistants—most, if not

all, of which have already appeared in scientific journals or transactions of the Royal and other societies, but which will be welcomed in this collected form. They are reprinted as originally published, but have appended to them numerous notes and memoranda on the same and other subjects, many of which, it is to be hoped, will form the subject-matter of future papers by their authors.

It is evident from this book that the teachers of anatomy at the University of Glasgow do much more than the mere routine work of class and dissecting room; that they have a keen intellectual interest in their work, are not content to accept stereotyped descriptions or theories, but are alert to see opportunity for new work, even upon hackneyed subjects, and willing to take much trouble in working out any line of investigation that may offer itself.

The fruitfulness of the methods of dealing with "things, not words," and of "seeing for one's self," is strikingly shown in several of the papers. For instance, Dr. Cleland describes, for the first time, certain constant differences between the human male and female pelvis (p. 95), and Mr. Bruce Young a "Lock limiting extension of the neck" (p. 79). Each of the writers has something new to describe, besides several old subjects worked out in a new way. Dr. Yule Mackay presents very thorough work on arterial morphology and development, &c., and Mr. Bruce Young on some of the joints.

It is impossible within any reasonable space to notice all the subjects dealt with, though many of them are of considerable practical value. Dr. Cleland's papers on teratological subjects are so interesting and suggestive, that we may be pardoned for dealing with them more fully, to the exclusion of the other subjects.

In the first paper Dr. Cleland describes several specimens of birds with supernumerary legs, "fowls with one or two appended limbs hanging between the legs on which they support themselves." These appended limbs he finds are often attached to a variously-shaped bone inserted between parts of the pelvis, representing a supernumerary pelvis. The most interesting point is that, as Dr. Cleland clearly demonstrates from these cases and the records of human and quadrupedal monsters, "the legs developed as the proper legs of the animal belong originally to two different pelvises, being the right limb of a left pelvis and the left limb of a right pelvis; and that, in these circumstances, the appended limbs may be two, or one of the two may be suppressed, or there may be a composite limb formed by the undivided blastema

for two adjacent limbs of two pelvises." What this means may be more easily understood by constructing formulæ of these limbs, thus:—If there were two distinct pelvises, there would probably be two distinct pairs of limbs— $R^r - L^r$, $R^l - L^l$; in these cases the right limb is R^r , the left is L^l , the first and last in the formula, the second and third, L^r and R^l , forming the supernumerary limb or limbs, thus:— $R^r - (L^r - R^l) - L^l$, $R^r - L^r R^l - L^l$, $R^r - L^l - L^l$, or $R^r - R^l - L^l$; in some cases the second and third are suppressed as regards any external indications, giving two apparently normally related limbs, of which the formula, however, would be $R^r - L^l$.

Further consideration of the subject, Dr. Cleland believes, justifies the very remarkable conclusion, "that every vertebrate animal has at an early period of its existence a latent capability of splitting up indefinitely." The evidence of this latent capability is the occasional occurrence of longitudinal fission of the embryo from either end, the fission being variable in extent, and occasionally complete, so as to produce twins in one sac. To do justice to this subject, it would be necessary to quote large portions of Dr. Cleland's papers *verbatim*, but we can only refer those interested to the originals, which are most interesting and suggestive. Another important conclusion, that "the factor which models one part into a vertebra, another into a rib, and another into a portion of the sternum, is not locked up in the physical properties of the molecules of the separate corpuscles, and there is in the organism a moulding power additional to the physical properties of the molecules," follows from the consideration "that individual corpuscles or groups of corpuscles become, after fission of the mass, ancestors of the textural elements of totally different parts of the body from those which they would have had to do with had the stimulus to fission not been given."

In the thirteenth paper Dr. Cleland deals with "Teratology, Speculative and Causal, and the Classification of Anomalies." The true bearing of the study of teratology is indicated in the suggestion that "just as in atavism the progeny reveals what was latent in the parent, so in monstrosities, potentialities of growth are revealed which never come to the surface in the ordinary course of development, but yet must exist in normal circumstances, otherwise they could not show themselves when exceptional conditions occur." Dr. Cleland holds that to obtain results of any value teratologists must do more than merely collect cases and elaborate descriptions

of them. They must study the causes of the phenomena, as he has done in the case of double monsters, where he believes he begins "to see with some measure of clearness how the varieties and degrees of duplicity are attributable to such circumstances as the following:—

"1. The period of application of the excitant to division.

"2. The amount of excitation.

"3. The interference of the adjacent parts of more or less completely divided embryos, each with the growth of the other.

"4. The equal or unequal development of the two embryos produced on one ovum, or of the doubled portions of a partially divided embryo.

"5. The commencement of fission at the caudal or cranial end of the embryo, or at both ends.

"6. The operation of the law by which symmetrical parts tend to adhere one to the other."

Dr. Cleland gives the outline of a scheme of classification, provisional and admittedly incomplete, based on causation. We give an abstract of it, referring those interested to the fuller scheme and notes of the original.

TABULATION OF MONSTROUS AND ANOMALOUS FORMS.

I. BY DEFECT (exclusive of acephali and acormi.)

A. *Without distinct external cause.*

1. Dwarfing—*a.* Partial; *b.* Complete.

2. Failure of completion of form of parts—*e. g.*, hare-lip, &c.

B. *Consequent on dropsies and changes connected therewith.*

1. Pleuro-peritoneal—*e. g.*, Ectopia viscerum.

2. Cerebro-spinal.

a. Part or whole of the central canal of the spinal cord—*Spina bifida.*

b. Part or whole of the cerebral ventricles—*e. g.*, Anencephalus.

C. *By strangulation.*

1. Occluded openings (ears, mouth, urethra, vent.)

2. From obstruction to the separation and expansion of potential parts.

a. Lateral organs cohering may lead to suppression of mesial parts—*e. g.*, Cyclopia.

b. Direct strangulation.

3. From external causes—*a.* Umbilical cord; *b.* Fibrinous bands in liquor amnii.

II. By Excess.

- A. *Hypertrophy*.—1. General; 2. Partial.
 B. *Multiplication of Parts*.—Polydactylism.
 C. *Longitudinal fission of Embryonic mass*.

1. Complete.

- a. Permanent—Twins in one chorion.
 b. Temporary—The division subsequently uniting by corresponding parts. These are double monsters without common column or cranial base. The union may be—1. Umbilical; 2. Thoracic; 3. Thoracic and cranial; 4. Cranial; or 5. Pelvic.

2. Incomplete.

a. Abcaudal.

1. One head and two bodies, with upper limbs—*a*. Distinct; *b*. Blended.
 2. One division larger than the other, the smaller being—*a*. Appended to; *b*. Included within; or *c*. Separate from the larger.
 3. and 4. Includes the class of cases dealt with in the first paper, noted above.

b. Abcranial.

1. The divisions equally developed.
 2. One division larger than the other, the smaller being—*a*. Appended; *b*. Detached (*acormus*).
 3. The axial parts of one division suppressed, the limbs remaining as supernumerary fore limbs.

c. Simultaneously abcaudal and abcranial—*e. g.*,
 "Two-headed Nightingale."

Dr. Cleland's papers are full of suggestive points, many of which will probably richly reward further research and study. We cannot afford more than another quotation from one of his "Memoranda" on teratology, when he says that "individuality is not indefinitely pre-existent, but is an evolution, and the forces, whatever they are, that bring it about, may be said to aim at its completion even in abnormal circumstances, and in those circumstances to evolve unusual methods. . . . In proof of the tendency of abnormally-altered embryos to return to a normal state, I may point to the comparative frequency of healthy twins in one set of membranes, and therefore derived from one ovum, and the infrequency of incomplete separation, such as was exhibited by the Siamese twins; also to the presence of a healthy child along with an acephalus."

The plates are numerous and well executed. A portrait of the late Prof. Goodsir, from a painting by Dr. Cleland, will be interesting to many old Edinburgh men. Dr. Cleland claims that it gives a truer representation of the man than any portrait published hitherto.

The only complaint we have to make is that there is no general index, which sometimes makes it difficult to find special points in the various articles. This may, however, be reserved for later volumes, which, if they equal this one in interest, will be welcome to the scientific world.

Lectures on Bright's Disease. By ROBT. SAUNDBY, M.D. Edin.
Bristol: John Wright & Co. 1889.

BROADLY speaking, medical books of the present day may be classed under one of two heads—viz. (1) Systematic Treatises or Text-Books, and (2) Original Treatises, including original papers, monographs, and clinical observations. The systematic treatise is, in its day, most useful, especially if well done; but, as in the nature of the case, it must largely consist of compilation and a recapitulation of the views and theories of others, it by and bye becomes old, and is forgotten. The original treatise, inasmuch as it records facts, which remain for all time, or describes a new method of research or treatment which gives a fresh impulse to medical study and practice, can never become old—it becomes one of the classics of medicine, to be known and studied by succeeding generations of workers. Obviously many may be able to write a systematic, but to few is granted the power of producing an original, treatise.

The volume at present before us must, we think, be placed among the systematic treatises, but it is a systematic treatise exceedingly well done, by a writer thoroughly well up in the details of his subject. The book is subdivided into three sections—viz., Section I, General Pathology; Section II, Clinical Examination of the Urine; and Section III, Bright's Disease. Under each of these headings we have a clear and most readable account of the various subjects, and this remark specially applies to the section on General Pathology. We find that the doctrine of albuminuria being occasionally present in healthy persons and persisting for long periods without causing derangement of the general health or of the structure of the kidneys, is ably upheld by the author. It is important also to have his opinion that "albuminuria *per se*

should not be regarded as an insuperable objection to life insurance."

Section II, on the Clinical Examination of the Urine, in health and disease, although exceedingly well done, is perhaps scarcely in its proper place in the middle of a set of lectures on so special a subject as that of Bright's disease—in fact, about this part of the book there is a suggestion of padding, which the volume could have done very well without.

We agree with the author and the authorities he quotes in thinking that no hard and fast line of distinction can be drawn between parenchymatous and interstitial nephritis, at least from an anatomical point of view, but at the same time we are not sure that the "attempts to classify the various clinical forms upon an anatomical basis" have resulted in failure. We doubt very much whether Dr. Saundby has conducted to a clearer understanding of the subject by the classification he proposes of (1) febrile nephritis, (2) toxæmic nephritis, (3) obstructive nephritis. The first division includes all those cases of acute or chronic nephritis occurring as a result of acute or chronic febrile diseases. It might, perhaps, be urged that acute nephritis may occur unassociated, so far as can be made out, with any acute or chronic febrile disease; but, when it is considered that acute and chronic febrile diseases are very distinctly dependent upon toxæmic conditions, it becomes a little difficult to see the essential point of distinction between the first and second headings in the author's classification. It will not do to limit toxæmic cases to lithæmia—if we are going to use terms which are to indicate special classes and forms of disease we must be sure that these terms are as accurate as possible. In the special chapter on the toxæmic variety we find the term toxæmic replaced by lithæmic, and a footnote to explain that "the other toxæmic nephritides are of too little clinical importance to call for description." This method of getting over difficulties of classification and generalization may be exceedingly convenient for an author, but it is not scientific, and will certainly not prove satisfactory to a logical mind.

The chapter on Obstructive Nephritis or Surgical Kidney, is insufficient as compared with the others, and it is evident that the author is by no means so well up in this part of his subject. It struck us as somewhat remarkable that, in a book containing a very exhaustive bibliography of the subjects of which it treats, no reference whatever should have been made to the work of Mr. Marcus Beck and Dr. Lindsay Steven on the subject of surgical kidney.

While we have found it necessary to make a few remarks of a critical kind with reference to some of the author's views and statements, we have at the same time no hesitation in pronouncing the volume a most excellent one, and in every way deserving of the confidence of the profession.

The Pathology, Clinical History, and Diagnosis of Affections of the Mediastinum other than those of the Heart and Aorta. By HOBART AMORY HARE, B.Sc., M.D. Univ. of Pa. Philadelphia: P. Blakiston, Son & Co.

THE affections of the mediastinum (other than those of the heart and aorta) receive but scant notice in text-books, and moreover the literature that does exist upon the subject is remarkably inconsistent, and therefore confusing to the seeker after the truth. Indeed, most writers on the subject, in pre-saging their observations make reference to this unsatisfactory state of things. This essay we are pleased to find will do much to place the subject in a better light. It is grounded upon the analysis of 520 cases—a collection which certainly greatly exceeds (and the author draws attention to the fact with characteristic American candour) any hitherto made, and one which is said to include all cases reported. A *resumé* of each case is given, and it is tabulated under the disease as diagnosed by the original reporter, while the tables are arranged with respect to the fatality and frequency of the various diseases. These tables, says the writer, supply most of the knowledge used in the writing of the essay, but it will also be seen that he is familiar with the opinions of most of the authorities on the subject. The relations of diseases of the mediastinum in regard to frequency, precise site, and sex are points upon which authors mostly differ, and it is precisely upon these points that the essayist's analyses are most conclusive. Thus it is shown that cancer occupies the first place in relative frequency, closely followed by abscess and growths of a sarcomatous nature, that the anterior mediastinum is the part involved in a large majority of the cases, and that "more males are affected than females by mediastinal disease, be that disease what it may." The paper is valuable as reducing the knowledge of the subject to concise statement without any attempt to build upon theory. The classification followed in that class of tumours embraced by the names lympho-sarcoma, lymphadenoma, and lymphoma, of placing the first under sarcoma and the last two together

in another table may be objected to by some, but it has the merit of simplicity, and will be none the less useful for those making reference to the subject. Out of 98 cases under "sarcoma," no less than 40—not 30 as stated in the text—are recorded as "lympho-sarcoma," while of lymph adenoma and lymphoma, there are 21. Some authorities regard these as so many different names for the same morbid process, and others believe them to represent distinct growths. The essay throws no fresh light on the question, but it would appear that "malignancy" has had much to do in determining the reporters towards one or other of these names. A chronological arrangement of the cases in the tables would be an improvement and of some value from a historical point of view.

Notes on Physiology. By HENRY ASHBY, M.D. Lond., M.R.C.P.; Physician to the General Hospital for Sick Children, Manchester; Lecturer on Diseases of Children; formerly Lecturer on Animal Physiology, Owen's College; Demonstrator of Physiology, Liverpool School of Medicine. Fifth edition, illustrated. London and New York: Longman's, Green & Co. 1889.

THESE notes are compiled for the sake of students preparing for examinations, the information they contain being founded, to a large extent, on *Quain's Anatomy*, *Gray's Anatomy*, and *Foster's Text-Book of Physiology*, to which the student is referred for his general reading. The manual contains, in a compact form, an outline of the leading facts of the subject, stated, as a rule, clearly and well. In aiming at brevity, however, the author has made many statements which, though possibly excusable in a first, should never have found their way into a fifth edition.

Thus we find it mentioned that "chondrin forms the bulk of the matrix of cartilage, and can be prepared by boiling cartilaginous substances in water," whereas it is chondrogen that forms the bulk of the cartilage, and the chondrin is formed in the boiling. On page 331, we find the following:—"Meanwhile the zona pellucida has acquired a new character. It has become beset with numerous villi, giving the ovum a shaggy appearance, and is now termed the *chorion*, and is probably derived from the cells of the epiblast"—the zona pellucida from the cells of the epiblast! Does not the following, too, call for some qualification? "In the human female, from the ages of 14 to 45, menstruation takes place every

month." Again, it has not been proved that "pepsin is not destroyed in the act of digestion; its digestive power appears to be infinite;" nor is it by any means universally admitted that "retiform or adenoid tissue consists of a delicate network formed by connective tissue corpuscles joining their branches together." There are, in fact, many evidences of a hasty hand, and careful revision is necessary before the book can be recommended as a perfectly reliable guide for students.

Étude sur la Cure Radicale de la Hernie non Étranglée, avec une Statistique de Cent vingt Opérations. Par le Dr. J. LUCAS-CHAMPIONNIÈRE. Paris: Coccoz. 1889.

THIS series of one hundred and twenty operations, with one death, represents the author's whole personal experience of the operation. The claim of safety and of superiority to any other procedures which he makes for it, must be taken along with his protest against the idea that the operation can ever become one of routine, that as such it is likely to be either safe or effective.

His reliance is upon a perfect antiseptic method, and upon an intimate knowledge of the subject on the part of the surgeon, which shall enable him to deal intelligently with the manifold varieties of conditions which present themselves, some of them only after the operation has been begun.

He will not have the operation judged of, much less performed, by those who think that "once one is a surgeon one should perform all operations." Done off-hand (*à la légère*) it may and will be destructive of life (*meurtrière*), and besides absolutely inefficient, "I am even convinced that the present movement will be followed by a hecatomb of ruptured patients."

"It is easy for the surgeon to make an imperfect radical pseudo-cure, which suffices for assistants ill acquainted with the necessities of technique, and may even satisfy the patient who finds himself relieved for a few weeks; it is very difficult to make an operation all that it should be."

"With old age, with great size of the hernia, with precedent pulmonary troubles, the vulnerability of the patient increases rapidly."

In the author's fatal case these conditions were present (though they were not wanting in others), and the patient, moreover, was entrusted to people unaccustomed to the after care of such cases. Skilled observation and attendance

in the after treatment he considers of capital importance, regard being paid to all that makes for the wellbeing of the patient.

In estimating the risks of the operation, he points out that regard must be had to the risks to which a ruptured person is already exposed.

The special forms of hernia are described with reference to the requirements and difficulties peculiar to each. The remarks on herniæ of the great intestine, congenital herniæ, and on adhesions, true and so-called, between the sac and its contents are highly instructive. They are confirmatory from a clinical point of view of the results of recent enquiries* into the developmental anatomy of the structures concerned, and will be appreciated by all who have to deal practically with this affection.

Transactions of the American Surgical Association. Vol. VI.
Philadelphia: P. Blakiston, Son & Co. 1888.

THIS forms a valuable collection of memoirs, with reports of the discussions to which their reading gave rise. The papers, seventeen in number, are worthy of the audience to whom they were addressed, and, with the discussions, taken part in by surgeons of world-wide reputation and from both sides of the Atlantic, amplifying and controlling the statements of the original speakers, may be taken to represent the high-tide mark of educated opinion on many of the great questions of surgery.

We would call special attention to some of the contributions. The exhaustive paper by Senn, of Milwaukee, on "The Surgical Relations of Micro-organisms" occupies nearly half the volume, but is well worthy of the space accorded to it. Collating as it does a vast amount of clinical and experimental observation, it gives some idea of the part played by the study of micro-organisms in the development of modern pathology. The phenomena of heredity, of infection, and of immunity, are discussed in relation to what is known of the life history of the microbes and of the tissue elements.

Upon the subject of inflammation it may be permitted to make the following condensed abstract:—"Modern pathology has established the fact that the condition called inflammation

* See C. B. Lockwood, *Med.-Chir. Trans.*, vol. lxxix, 1886, "On Encysted and Infantile Hernia;" also *Hunterian Lectures* "On the Development and Transition of the Testis," 1888.

is a restorative process which has for its object the repair of injured tissues, or the neutralisation or removal of the primary microbic cause. . . . All inflammatory processes can be divided into two classes: (1) Simple or plastic inflammation; (2) Infective or destructive inflammation. Simple or plastic inflammation is a regenerative process induced by a trauma, or disease, in which the tissues are in an aseptic condition, and the products of tissue proliferation are transformed into normal permanent tissue. . . . It is only a matter of time until the process still known as simple inflammation will be no longer considered and classified with inflammatory processes, but will be assigned a separate place in pathology, as it resembles in every respect the physiological processes as we observe them during the growth and regeneration of the body. (2) The characteristic features of infective inflammation are, that it is caused by the presence of specific microbes, and that the products of the inflammatory process do not undergo transformation into tissue of a higher type."

Other important papers are those by Bull, of New York, on the "Surgical Management of Typhlitis and Perityphlitis," on "Supra-pubic Cystotomy," by Hunter M'Guire and J. H. Packard, upon which a most interesting discussion followed; also that on "Three Successful Cases of Cerebral Surgery," by Keen, of Philadelphia. These consist of (1) the removal of a large intracranial fibroma; (2) exsection of damaged brain tissue; and (3) exsection of the cerebral centre for the left hand, with remarks on the general technique of such operations.

The Abortion Treatment of Specific Febrile Disorders by the Biniiodide of Mercury. By C. R. ILLINGWORTH, M.D. Ed., M.R.C.S. London: H. K. Lewis. 1888.

ALTHOUGH dealing with a very practical subject, this little book is theoretical, and even fanciful. There does not seem to be much proof of the specific action of the biniiodide beyond the author's assertion. And after all he falls back very much on the old fashioned iron and chlorate of potash treatment. The subject is not dealt with in such a way as to carry conviction—clinical evidence is wanting. As already stated, the little book is theoretical and even fanciful.

MEETINGS OF SOCIETIES.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

SESSION 1888-89.

ORDINARY MEETING VII.—8TH APRIL, 1889.

The President, PROF. W. T. GAIRDNER, M.D., in the Chair.

I.—CASE OF RETINITIS ALBUMINURICA.

(See page 401.)

II.—CASE OF OPAQUE NERVE FIBRES OF THE RETINA.

(See page 407.)

By DR. T. SPENCE MEIGHAN.

III.—CASE OF ARGYRIA OF THE CONJUNCTIVA.

By DR. T. SPENCE MEIGHAN.

Dr. Meighan remarked that this case was interesting as showing the discolouration of the conjunctiva caused by the long use of nitrate of silver solution. Cases of this kind are not met with so frequently. The patient is an elderly woman who complained of watery and inflamed eyes six years ago, and used nitrate of silver drops to her eyes, at that time, for about six months. Both eyes show blackish discolouration of the conjunctiva, and the lids and conjunctiva are flabby and have no elasticity. A piece of conjunctiva was excised and specimens of it are placed under the microscope; they show that the epithelium is not discoloured, but the layer of tissue below the epithelium is stained a dark olive-brown colour. This layer is probably the elastic fibre layer of the conjunctiva.

IV.—CASE OF XEROPHTHALMOS.

By DR. T. SPENCE MEIGHAN.

H. M'M., aged 30 years, came to the Glasgow Eye Infirmary a month ago. Complains of dimness of vision and a dry uneasy feeling in the eyes, and the eyelids not moving freely; this he thinks is due to a want of moisture, as the eyes water very little. His eyes have troubled him for more than twelve years, chiefly from inflammation accompanied by some discharge, and for a while the eyelashes rubbed against the

eyeball and gave him great pain, but now he does not feel them so much. Sometimes the eyes feel itchy, and although he rubs the front of them with his finger he feels no pain, but only a sensation like rubbing the skin. There is no discharge from the eyes, but when the wind blows against them they water a little. The sight has got much worse of late, so much so that now he can only see large objects.

The corneæ are hazy and dry. The conjunctiva looks like parchment, and is movable on the subjacent tissue. Only a faint illumination can be obtained by the ophthalmoscope.

This is an atrophic condition of the conjunctiva whereby the glandular structure of the membrane is destroyed, giving a dry, lustreless look to the eyes, as if a piece of silk paper were laid across them; but, while the glandular structure of the membrane is destroyed, the epithelial covering is very much increased in thickness, and on the surface the cells are closely packed, giving a cuticular appearance to the membrane. Two varieties are described in books—the parenchymatous form, chiefly the result of granular ophthalmia; and the epithelial form, confined to the exposed portions of conjunctiva mostly, and the result of long continued inflammation of the conjunctiva in a debilitated constitution.

V.—CASE OF POTT'S DISEASE OF THE SPINE.

BY DR. BEATSON.

Dr. Beatson showed, as a fresh specimen, the parts from a case of Pott's disease of the spine, where he had trephined for the relief of a spreading paralysis, which it was thought might be due to pressure on the cord. The patient was a man, aged 42, who was admitted into the Western Infirmary on 28th February, 1889, under the care of Professor Gairdner. There were evidences at that time of a lesion in the dorsal spine, leading to paraplegic symptoms, with absolute disability in the lower limbs. The leading features in the case were rigidity, exaggeration of deep reflexes, and girdle sensation. This last was felt four weeks before admission. There was also anæsthesia, with involuntary shakings and tremblings of the lower limbs after every vestige of voluntary control had disappeared. Involuntary discharge of urine, and probably retention (relieved by catheter). Involuntary evacuation of fæces. No history of syphilis or injury. Reflex spasms and rhythmical tremors frequent after admission.

Actual cautery applied by Sir George Macleod on 1st March. No improvement followed. On 18th March there

was a severe rigor. As paralysis was spreading, and patient's condition was becoming one of great gravity, on 2nd April the spine was trephined by Dr. Beatson, the posterior arches of the sixth and seventh dorsal vertebræ being removed. Patient was in no way benefited by the operation, and he died on 4th April.

The *post-mortem* examination showed an abscess in connection with the body of the seventh dorsal vertebra, opening probably into the right pleura. There was also cystitis and pyelitis of the right kidney (recent).

VI.—CASE OF RETINITIS ALBUMINURICA WITH PIGMENTARY CHANGES.

BY MR. A. MAITLAND RAMSAY.

An account of this case, with a chromo-lithographic illustration, will be found in last month's number of the *Journal*, page 324.

VII.—CIRRHOSIS OF THE KIDNEYS ASSOCIATED WITH CONGENITAL ATROPHY AND MALFORMATION OF THE ORGANS.

BY DR. TENNENT.

Dr. Tennent showed a specimen of cirrhosis of the kidneys associated with congenital atrophy and malformation of the organs.

The left kidney was very small, measuring only $2\frac{1}{2}$ inches in its long diameter, and weighing rather less than an ounce. The surface was very irregular, and the ureter divided into two parts before it reached the kidney, so that the pelvis consisted of two portions; but one of these showed evidences of a further division.

The right kidney was less reduced in size, though markedly atrophied. It measured $3\frac{1}{2}$ inches in its long diameter, and weighed $2\frac{1}{2}$ ounces. The pelvis, as a whole, was divided into three parts, and its upper division was further subdivided into two parts. The upper part of the kidney was much more atrophied than the lower, and also showed a marked hydronephrosis. No obstruction was found in any part of the pelvis. The lower half of the kidney was much less atrophied; and about the position of the middle of the pelvis there was a transverse groove in the kidney substance. The surface of the kidney was very irregular, and the capsule was firmly adherent.

The heart weighed 13 ounces. The left ventricle was

distinctly, but not extremely, hypertrophied. The valves were normal.

The spleen was considerably enlarged, weighing $9\frac{1}{2}$ ounces.

The brain was somewhat firm in texture. Otherwise no condition was found meriting special comment.

Dr. Tennent stated that the patient, who was a woman aged 28, and a domestic servant, was admitted to the Hospital on the 15th June, 1888, and died on the 7th January, 1889.

The history of her illness revealed the usual insidious development of renal cirrhosis, and briefly was as follows:—

In childhood patient had scarlet fever and measles, but since then she had always enjoyed excellent health, until March, 1888. During that month she occasionally felt a slight dull pain in the lumbar region, and was impelled to micturate more frequently than usual.

About the middle of April she began to suffer from headache, anorexia, tendency to morning sickness and vomiting, giddiness, noises in the head, and drowsiness. At this time too a slight amount of swelling was observed about the face, hands, and feet. About the beginning of May these symptoms had greatly abated, and the swelling had almost disappeared. Shortly after, however, the symptoms mentioned again recurred, and this was soon followed by similar improvement. About the end of May another repetition of these symptoms occurred, and on this occasion her sufferings were much more intense, but there was no swelling noted. During this exacerbation she became one day extremely drowsy, and gradually altogether unconscious. On recovering she was told she had been in a fit.

On her admission to the Hospital on 15th June she presented an anæmic appearance, and a slight amount of œdema was found about the eyes and ankles. On the 17th June she had three severe convulsive seizures, and within a fortnight after her admission the most striking evidences had been displayed of the existence of most of the well known remote or indirect symptoms of renal cirrhosis; in particular, she suffered from severe headaches, frontal and vertical, extreme anorexia, nausea and persistent vomiting, drowsiness, noises in the head, sudden attacks of breathlessness, accompanied by a feeling of choking, and frequent spasmodic movements of the muscles of the face, arms, and legs. Cerebral disorder was still more clearly indicated by the development of active delirium, attended by great emotional disturbance, the patient giving way alternately to fits of laughter and crying. The latter became so continuous and intense that it was at one

time thought desirable to have her removed from the Hospital. The pulse always indicated marked evidences of arterial tension, and examination of the heart showed the apex impulse to be in the sixth interspace, though not unusually displaced to the left. A ventricular systolic murmur was also always heard over the mitral area, and there was always noted decided accentuation of the aortic second sound. Perhaps the most interesting of the remote symptoms and signs occurring at this period was the profound disturbance of vision, the patient suddenly becoming completely blind. At first the attacks of blindness were of very brief duration, vision being remarkably clear during the intervals, but gradually the blindness became more enduring, and finally it continued more or less complete for nearly ten days. Throughout the period of blindness the eyes were carefully and repeatedly examined with the ophthalmoscope, but no gross lesion was detected in the fundus of either eye, and on no occasion was there observed the slightest obscuration of the margins of the optic disc. At each examination, however, it was noted that while the retinal veins were normal in size, the arteries were so extremely contracted as to be almost thread-like in appearance. After the termination of this brief period of blindness, the patient never subsequently complained of any disturbance of sight. The complete and extensive, though intermitting, and varying, nature of the blindness existing at this time was therefore specially interesting when considered along with the actual condition found on ophthalmoscopic examination. The absolute blindness clearly resulted from functional disorder of the retina, caused by the well known influence of an excessive quantity of urea in the blood on the capillary vessels, but the extremely contracted and thread-like appearance of the retinal arteries conveyed with exceptional vividness the powerful influence of urea in occasioning such results. The uræmic cause being thus general and widespread, the resulting blindness was consequently great and diffuse, and the completeness of the blindness then arising from such cause was in very striking contrast to the condition observed on the 30th October, when, though the patient had made no complaint of impaired or defective sight, the fundus of each eye was found for the first time to exhibit numerous hæmorrhages, and a few of the white spots characteristic of albuminuric retinitis.

In the right eye a hæmorrhage occupied the macular region, and when this eye was tested, a central scotoma was detected, but in the peripheral portions of the visual field vision was

perfectly good. In the left eye, however, where the hæmorrhages were equally numerous, but where the macula had escaped, the patient could easily distinguish the smallest letters. Frequent subsequent ophthalmoscopic examinations showed the usual progress of albuminuric retinitis—the hæmorrhages came and went, the white spots became more numerous and characteristic, and the optic discs somewhat swollen and cedematous, but as already stated, on till the day of her death, the patient never spontaneously complained of the slightest degree of disturbance of sight or dimness in vision.

The remote symptoms and signs connected with the eyes in this case conveyed very impressively the fact, on the one hand, of the complete degree of blindness which may result from circulatory disturbances of a functional kind, and on the other, of the great degree of organic change which may exist without the slightest realization on the part of the patient of any impairment of vision, and the latter also impressively indicates the extreme value and necessity of a careful ophthalmoscopic examination apart from any subjective symptoms being complained of, or admitted by a patient.

The further progress of the case, after the grave conditions detailed, as existing during the first two weeks of her residence in hospital, had somewhat abated, consisted in the frequent recurrence of similar symptoms and signs, in varying degrees of severity, followed by long intervals of very marked improvement under appropriate treatment, but throughout the subsequent progress there was hardly any œdema observed.

The vascular difficulties were, however, further displayed by repeated attacks of epistaxis, a specially severe attack occurring on the 29th October, the day preceding the first recognition of the albuminuric retinitis.

The morbid state of the blood was also further indicated by the frequent occurrence of erysipelas, the onset of these attacks being revealed by the development of pyrexia, which otherwise had been continuously absent during her entire residence in hospital.

The urine throughout always contained a considerable quantity of albumen, and was always of pale colour and low specific gravity. A few granular and hyaline tube casts were occasionally detected. The quantity of urine passed, and the amount of urea eliminated daily, varied considerably. During the first two weeks after her admission, the diminution was great, the highest quantity passed being 42 ounces, but the average decidedly under 30 ounces; the greatest amount of urea passed being 162 grains, but the average about 100

grains. Under treatment the quantity of urine gradually increased, until 60, 70, 80, and even 90 ounces were frequently passed, and the amount of urea also steadily rose, till 300 grains were frequently noted, and on one occasion 385 grains were estimated. Towards the end of August a marked tendency towards diminution in quantity was again observed, and from the end of September the diminution became very great, and persistently continued so, on till the fatal termination, the highest quantity subsequently noted being 47 ounces, and this only on a few occasions, the average quantity rarely exceeding 28 ounces, and frequently being under 20, 16, and 10 ounces. The amount of urea was correspondingly decreased, and rarely exceeded 100 grains after the end of September, the average quantity being usually under 100, 80, 60, and 50 grains. Two weeks before death the quantity of urine passed became more continuously diminished, and uræmic convulsive seizures again occurred. On the 7th January these attacks became more frequent and severe, and patient died comatose.

In concluding, Dr. Tennent remarked that the association of renal cirrhosis with congenital atrophy of the kidneys in this case was worthy of special remembrance, as whatever the original causes may have been of the development of interstitial irritation of the kidneys with all its results, certainly, the prior existence of congenital atrophy must have rendered the kidneys still more liable to be disturbed by such causes, and have ultimately considerably hastened the rapid and simultaneous manifestation of so many of the remote symptoms and signs of renal cirrhosis. The numerous evidences of uræmia truly indicated the gravity of the condition, and the renal inadequacy was still more clearly revealed by the gradual decrease in the urinary flow which occurred about the end of August, and particularly by the great diminution in the quantity of urine and amount of urea from the end of September on till death.

Dr. Tennent also commented on the importance, in the prognosis of renal cirrhosis, of a clear and accurate estimate being formed of the patient's idiosyncrasy as to the tolerance of an excessive quantity of urea in the blood, as great variations were constantly met with in this direction.

VIII.—CASE OF TUMOUR OF THE LUNG.

BY DR. ALEX. ROBERTSON.

Dr. Alex. Robertson stated that at a former meeting of the Session, when Dr. Lindsay Steven showed a specimen of lung-

tumour, he (Dr. Robertson) had mentioned that there was then a patient in one of his wards suffering from this condition, and he considered that the morbid growth was probably a lymphadenoma. The patient had died two or three weeks afterwards, and the specimen was now submitted.

The patient was 37 years of age, and a boiler maker to trade. He was admitted into the Royal Infirmary on 30th November, complaining of cough and spit and pain across the front of the chest, and his illness was said to be of only 11 weeks' standing. However, for two previous winters he had suffered from cough and spit, but they had not troubled him during the summer. He had been addicted to alcohol. There was no evidence of syphilis. Family history was satisfactory.

From the report in the Journal, it appeared that on admission, patient's face was dusky in hue, breathing was accelerated, and there was expectoration of a small quantity of muco-purulent sputum, which on two or three occasions recently had been tinged with blood. His voice was husky. On percussion, the upper part of the right lung was found to be dull in front as low as the nipple, and also behind, but not so far down. The vocal fremitus was somewhat increased over this dull area. On auscultation there was short, harsh inspiration, followed by prolonged expiration, and accompanied by all varieties of whistling, wheezing, and creaking râles. These râles were heard on the left side as well as on the right. The heart's sounds were accentuated, but no murmur was then noted. Temperature, 98° F.; pulse, 114, small; urine acid, sp. gr. 1015: no albumen. The superficial abdominal veins were enlarged and tortuous.

3rd December: note by Dr. Robertson. All the superficial veins of the right side of the body in front, both chest and abdomen, are greatly distended, and this distention implicates the left side, though to a much less extent. On coughing or any other strain, they stand out with great prominence. Some dilated veins are also observed between the shoulders, especially on the right side of the upper dorsal spines. The current of blood in these distended veins, in front at least, seems to be from above downwards towards the epigastrium. The dull area extends slightly beyond the left edge of the sternum at its upper part. The heart's sounds are heard distinctly over the whole area of dulness; and at the upper part of the sternum, as also in the right supra-clavicular region, a soft murmur follows the first sound. Apex beat is about half-an-inch outside the nipple line in the fifth space. The right jugular vein is distended. There is fulness and

tension of the right side of the neck, as well as under the right clavicle. No abnormal pulsation observable. Radial and carotid arteries are equal in volume on the two sides. Slight exophthalmos of the right eye is present; left eye is shrunk from old injury. No evidence of oesophageal obstruction on passing a medium size bougie, although there was much spasmodic action; but he has considerable difficulty in swallowing food and drink. There is slight hoarseness. Dr. Newman made a laryngoscopic examination, but found only a little injection of the vocal cords. After this date there was a rapid increase of dulness in the front of the chest, and there was some bulging of the chest wall on the right. General oedema of both hands set in. Latterly, dyspnoea was very great. For some days before death a good deal of mucopurulent sputum was expectorated. Death occurred on 7th January.

Dr. Robertson said that the only question which arose in his mind was the possibility of its being a case of aneurism. That, however, was only at the first examination, and a little study of the conditions present had sufficed to dismiss this hypothesis as untenable.

Dr. Newman, who performed the *post-mortem* examination, reported that the tumour was a lymphadenoma, probably originating in the mediastinum, some portions of it having caseated and broken down.

IX.—TUMOUR OF THE UPPER JAW.

A specimen was shown by Mr. Henry Rutherford.

ORDINARY MEETING VIII.—13TH MAY, 1889.

The President, PROFESSOR W. T. GAIRDNER, in the Chair.

I.—TOTAL LOSS OF HEARING FOLLOWING MUMPS.

BY DR. THOMAS BARR. (See p. 408.)

II.—CASE OF PARALYSIS OF LEFT VOCAL CORD IN A PATIENT SUFFERING FROM PHTHISIS PULMONALIS.

BY DAVID NEWMAN, M.D., AND JOHN LINDSAY STEVEN, M.D.

DR. LINDSAY STEVEN said that the man had been under his care in the Glasgow Royal Infirmary Dispensary, and read from his private journal notes of the case, taken on the 14th

January last, with special reference to the state of the chest. At that time the patient had lost his voice altogether. Having regard to the exceedingly well marked signs of phthisical disease, with evident excavation and advancing softening at the left apex, Dr. Steven was inclined to look upon the aphonia as due to a tubercular affection of the larynx, and sent him to Dr. Newman for advice as to the laryngeal trouble.

DR. DAVID NEWMAN then read the following report of the case, the patient, since Dr. Steven went off duty in the dispensary for three months, having been entirely under his care.

J. R., æt. 37, a stone mason by trade, came under my care in January, 1889, complaining of hoarseness and loss of voice of nine months' duration. This came on quite suddenly, and for nearly four months patient was almost completely aphonic. He recovered considerably, however, and when he applied to me for treatment was complaining chiefly of great hoarseness.

Previous to this attack he had been a strong healthy man, but he remembers his mother telling how he had suddenly lost his voice when a child; on that occasion, however, it only lasted for a very short time. When abroad some six years before, he had a severe attack of summer diarrhoea, and he had a return of this a week prior to his admission to hospital.

His voice was very dry and husky, and this huskiness was accompanied by a bad cough, with copious expectoration, the latter ceasing after his admission. The sputum at times was tinged with blood, but besides this he gave a history of bringing up pure blood some years previously, and since then of sputa which were almost entirely composed of blood.

Examination of the lungs showed well marked excavation, and probable fibrous induration at the left apex, accompanied by dulness extending down to the level of the second rib, and cracked pot sound. The right lung showed increased resonance. In both, tubular breathing and muco-crepitant râles were heard, the latter being more marked in the right lung.

Examination of the heart showed presence of a slight thrill dependent in all probability on the tension of the blood in the pulmonary artery, which was shown by marked accentuation of the second pulmonic sound. There was no murmur present though there was reduplication of the second sound.

Patient himself attributed his condition to his work, at which he was forced to inhale large quantities of stone dust. Most of his fellow-workers had died before reaching his age.

At the time of admission the left vocal cord maintained the form of an Indian bow, and was quite immovable both during inspiration and attempted phonation. The only move-

ment that could be discovered was a slight motion of the tip of the left arytenoid cartilage, probably caused by contraction of the interarytenoid muscle.

The right vocal cord is slightly serrated on its edge, otherwise it is normal in appearance, and its movements are complete. Patient was dismissed on the 28th January, but was to return to the ward to have interrupted current applied to larynx. Since dismissal (10th May) from ward great improvement has taken place in his voice, more than would be anticipated from any increase in movement of left vocal cord.

Patient says that his voice is now as good as ever it was, even for singing purposes. The only difference he finds is that his breath is not so long as formerly. On inspection the left vocal cord is found to be almost straight, and occupies the cadaveric position, the Indian bow-shaped form being no longer present. During phonation there is a slight approach of the left vocal cord toward the middle line, and there is considerable movement of the tip of the left arytenoid cartilage. The right cord compensates for the immobility of the left one by passing the middle line. The tension of the right cord has also improved.

Dr. Lindsay Steven, remarking upon the physical condition of the chest as compared with that noted when he last examined him in January last, stated his opinion that the râles at both apices were much less abundant, and although there was still a large excavation at the left apex it was much drier and seemed to be contracting.

III.—OBSTRUCTION OF THE PYLORUS IN AN INFANT.

By MR. W. K. PEDEN, M.B., C.M. (See p. 416.)

IV.—KARYOMITOSIS.

By JOSEPH COATS, M.D.

Dr. Joseph Coats showed a series of specimens; which had been prepared by Professor Flemming, of Kiel, illustrative of the process of nuclear division by karyomitosi.

V.—PIGMENTED SARCOMA IN ITS EARLY STAGES.

By THOMAS REID, M.D.

Dr. Reid showed microscopic sections of a subconjunctival pigmented spot, about the size of a pin-head, situated at the junction of the cornea with the sclerotic, in a boy of 14 years of age. The spot was seen to consist mainly of a series of

encapsulated spaces containing plasmoid cells charged with pigment. Lumina in considerable number were also to be seen in the encapsulated spaces, and probably were sections of capillaries as blood-vessels in some cases could be seen passing through the capsule. The intervening spaces which contained normal tissue were infiltrated with pigment granules of various sizes, and in some cases presented the appearance of effete plasma cells.

The chief interest of the case was in the fact that these pigmented spots frequently develop into regular sarcomata, and although there was no evidence of sarcomatous elements in tumour, his experience of such cases was that it was almost certain to occur.

DR. REID also showed sections of the OPTIC NERVE ENTRANCE from a case of RETINITIS PIGMENTOSA, in which the eye had been removed on account of glaucoma absolutum in a girl aged 16 years. The chief point of interest was the presence of amyloid bodies in the inner extremity of the optic nerve and replacing the nerve tissue. Full details of the case will be published in a future communication.

A committee, consisting of Dr. Joseph Coats, Dr. David Newman, and Dr. Reid, was appointed to examine and report on the specimens shown.

VI.—CASES OF TRICHOREXIS NODOSA, WITH A HEREDITARY HISTORY.

BY JOHN LINDSAY STEVEN, M.D., AND QUINTIN M'LENNAN, M.D.

Dr. Lindsay Steven stated that the three brothers, aged 6, 8, and 12 years respectively, whom he presented to the Society, were at present under his own and the care of his surgical colleague, Dr. Quintin M'Lennan, in the Dispensary of the Glasgow Hospital for Sick Children. Hairs from the head of each of the patients presented in a most characteristic way the peculiarities of trichorexis nodosa. The two younger children appeared to be nearly bald, not however from an absence of hair follicles, but because the hair broke off short. The oldest boy had more hair than the other two, but even in his case the scalp was everywhere quite visible. Another younger boy, aged 4, was similarly affected, making four out of a family of nine. The father of the boys, since very early childhood, had been the subject of the same deformity, and also his father. Since the date of the meeting Dr. Steven has seen a photograph of the children's grandfather, who is now dead, but the

baldness from which he suffered is in the picture well hidden under a voluminous wig, which he was in the habit of wearing on state occasions.

The cases will be fully reported in a future communication.

VII.—A NEW METHOD OF ILLUSTRATING PLATE CULTIVATIONS
OF AIR ORGANISMS.

BY MR. A. E. MAYLARD, B.S.

Mr. Maylard showed various plate cultivations of air organisms exhibited by illustrations of a new kind. The illustrations were made by pasting sheets of ordinary black wall paper upon thick white cartridge paper, and then sticking with gum upon the black surface small round pieces of white and coloured papers to represent the colonies. Some half-a-dozen of such illustrations were shown, taken from plate cultivations obtained by exposure to the atmosphere for certain times and under different conditions. Thus, one illustration showed no fewer than 684 separate colonies. It was copied from a plate which had been exposed for an hour in a clinical class room, shortly after the students, who had filled it, had left. After being placed aside for a week to enable the organisms to develop upon the surface of the jelly, the plate was then copied, by drawing the various colonies upon a piece of paper, from which the illustration was finally taken by enlargement.

For a list of office-bearers elected for the ensuing session at this meeting of the Society, see "Current Topics," page 427.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL
SOCIETY.

SESSION 1888-89.

MEETING VII.—24TH APRIL, 1889.

The President in the Chair.

I.—THE ACTION OF QUININE IN MEDICINAL DOSES ON THE
PREGNANT UTERUS.

BY DR. ROBERT PARK.

Dr. Robert Park read "Notes on the Action of Quinine in Medicinal Doses on the Pregnant Uterus, with an Illustrative

Case." After referring to the report of a paper read by Dr. Lombe Atthill, and published in the *Lancet* for 22nd December, 1888, entitled, "On the Influence of certain Drugs on the Utero-Ovarian System," Dr. Park stated that Mrs. C., æt. 27 years, three years married, never pregnant, had consulted him in August, 1886. On examination, he found her suffering from retroversion of the uterus, with tender fundus. This was replaced without difficulty, and a Hodge pessary introduced, the relief from which was entire and immediate. She soon thereafter became pregnant. In August, 1887, when about five and a half months pregnant, she was threatened with a miscarriage—considerable discharge, with rhythmic pains, which, however, subsided on the administration of opium, with small doses of liq. ergot. ammon.; and, on 31st December following, was delivered of a healthy and vigorous female child. On inquiring as to the cause of the hæmorrhage, Dr. Park could elicit absolutely nothing, except that, three days previously, she had taken a dose of quinine to relieve a neuralgia. He considered that she must have taken from 10 to 15 grains, from the effects produced on the head. The patient herself stated that, soon after the singing in her ears stopped, she began to feel uneasy about the lower part of the abdomen. The argument put forward by Dr. Park in this case may best be stated in his own words: "As the quinine induced a violent and untoward uterine excitation in this case, by a dose which is at least within ordinary medicinal limits, though inducing toxic effects in this particular case, it must, in smaller doses, have a distinct, though less obvious, action of the same kind. And I believe that all the tonics which have influence over non-striated muscular fibre exert their influence over the uterine muscular system, unless and except when these are the seat of inflammatory hyperplasia."

In the discussion which followed,

Dr. M. Cameron stated that he had met with cases where he was inclined to attribute abortion to its use.

Dr. G. A. Turner asked if the dose of quinine in Dr. Park's case had caused vomiting. He further stated that, while in practice abroad, he had frequently used large doses of quinine in pregnant women, and had never seen any bad results.

Dr. Alex. Miller agreed pretty much with Dr. Atthill, that those drugs mentioned by Dr. Park—viz., ergot, savin, quinine, and strychnine had very little effect in producing uterine contractions even on the pregnant uterus, although he thought it not improbable that the quinine caused this threatened miscarriage.

II.—THE TREATMENT OF ABORTION.

DR. NIGEL STARK then introduced a discussion on "The Treatment of Abortion," in which he advocated thorough and early evacuation of the contents of the uterus, rather than the expectant treatment so frequently carried out, and which he considers fraught with so much danger to the life of the patient.

Drs. Cameron, Park, Turner, Pollok, J. A. Robertson, Tindal, Miller, Halket, and the President took part in the discussion which followed, and Drs. Park and Stark were thanked for their communications.

ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

SURGERY.

By A. E. MAYLARD, B.S.

The Angle of the Neck with the Shaft of the Femur at Different Periods of Life and under Different Circumstances. By Professor Humphrey, F.R.S. (*The Journal of Anatomy and Physiology*, January, 1889.)—In this paper Professor Humphrey seeks to refute the generally accepted statement that the form of the upper part of the femur undergoes a change in advancing years—the angle of the neck with the shaft becoming lessened, and the level of the head of the bone being consequently lowered. From an examination of several specimens, he is able to affirm that while the angle decreases during the period of growth, after growth is completed usually no farther change takes place, even if life be continued to extreme old age. Other conclusions come to are that the angle is smaller in short bones than in long ones, and that it is also most likely to be small when the pelvis is wide; the combination of these two conditions rendering it usually smaller in women than in men. Further, if during growth the limb be relieved of the weight of the body, as in the bedridden state, in paralysis, or in a stump, the angle of the neck with the shaft usually retains the open form of early life, or even may become wider.

"Mammillaplasty." By W. L. Oxford, M.D., of Chicago. (*Annals of Surgery*, April, 1889.)—Under this heading the author describes an operation he has practised for the relief of retracted nipples. He advises it should only be done after the failure of mechanical devices have been fairly tried. The operation is thus described:—"The nipple was seized with the volsella, and drawn out till the skin was well on the stretch. Beginning about one-third of an inch from the apex, two curved incisions, enclosing a lune-shaped piece of skin, were extended out in the breast for two and a half inches, and the skin and fat down to the fascia removed. This area of denudation should have its greatest breadth at the base of the newly-formed nipple. Three such lunes radiating from the nipple were made. A catgut suture was now passed in and out, purse-string fashion, through the fascia, encircling the base of the

nipple, and strongly tied at the point of entrance. This served to pucker up the fascia, so that when the volsella was removed the nipple showed no tendency to return to its inverted condition. This suture becomes completely buried when the denuded areas are closed. These areas were now closed with the continuous suture." The result in the right and more depressed nipple was so satisfactory that the author attempted the same operation upon the left with a much more satisfactory result, the lunes being made a little broader and the buried sutures a little deeper.

A New Method of Supplying Bone to fill up Gaps in the Cranial Vault, the Result of Compound Fractures. By Dr. Seydel. (*Centralbl. für Chirurgie*, 23rd March, 1889, No. 12.)—The method which the author successfully carried out was upon a patient who had received a compound depressed fracture of the skull. The depressed piece of bone was removed, and the wound carefully disinfected. Not to run any risks of septic or traumatic meningitis, the author did not close the wound, but left it open for twelve days. At this time, the parts appearing quite healthy, the author proceeded to perform the following operation:—A flap of skin was turned off the surface of the tibia, and the bone exposed, covered with periosteum. The knife was then made to divide the periosteum down to the bone, of the size and shape required. The piece thus mapped out was carefully chiselled off the surface of the tibia, and placed in some sterilised salt solution. It was then cut into some six or eight equal-sized fragments, and placed mosaic-like upon the exposed dura mater, with the periosteum externally. The wound was dressed antiseptically. Five days afterwards it was exposed, when the pieces were all found firmly adherent to the dura mater. Some were reddish, others whitish in colour. Five days later the wound was again examined, when all the pieces were of a faintish red colour, and appeared as if they formed only one piece. A skin flap was finally taken from the scalp to cover over the gap. The wound cicatrised completely.

Arthrodesis. By Dr. Hermann Euringer. (*Münchener Med. Woch.*, 5th February, 1889.)—The author gives the results of his investigations into the history of arthrodesis, and cites a number of cases. Fifty cases and sixty-nine operations are given. Arthrodesis was most frequently performed in cases of poliomyelitis, also in club-foot and flat-foot, when these were accompanied by paralysis. For this Zinsmeister suggests arthrodesis of the talo-navicular or of the talo-crural joint. Wolff was the first to apply this operation to myopathic and habitual luxations. His first case resulted in the cure of an habitual luxation of the humerus, by causing a union of the ligaments, and thus fixing the head of the bone firmly in its place. The same operation was performed by Albert and others with success.

In one of Euringer's cases arthrodesis was performed upon both hip-joints, causing complete ankylosis, and in six months the patient was able to walk well with only the assistance of a cane.—(*The International Journal of the Medical Sciences*, May, 1889.)

Present Aspect of the Iodoform Question. By William W. Van Arsdale, M.D. (*Annals of Surgery*, March, 1889.)—This subject is very ably discussed by the author in the shape of an editorial article. It is carefully considered from both aspects—the clinical and the experimental—and every surgeon who interests himself in the material he is accustomed to make use of in the treatment of wounds, will, with much profit, peruse this long and instructive article. It is difficult to abstract it, so full is it of useful information; but some of the practical conclusions which the author feels justified in deducing may be given:—

"Since we know that iodoform may contain germs, we should sterilise it before use; this may be done by washing it in sublimate solution. . . . We will not look for an action of I at a distance, an action throughout a large wound when only a portion of it is in contact with the powder, nor at

the depth of a wound when only the surface is covered with iodoformised gauze. We will not use I during a primary operation in uninfected tissues, since we know that septic infection will not be counteracted by the simultaneous application of I. But we will esteem I for its action in preventing the subsequent infection of wounds, both during the change of dressings and in case of accidental exposure. . . . In wounds already septic we may use I as extensively as possible, endeavouring to bring the powder into contact with every part infected. The greatest benefit will be derived from I by its use in operations about the mouth, vagina, and rectum, where, owing to its property of destroying the ptomaines, it acts as a powerful deodoriser."

The Treatment of Fractures of the Leg where the Fragments threaten to Perforate the Skin. By Verneuil. (*Centralbl. für Chirurgie*, No. 5, 1889.)—The author recommends a simple plan for checking the above danger. He first gives the patient a morphia injection, in order to deaden somewhat any pain. An "extension" dressing is then applied to the foot and parts below the seat of fracture. By this means any convulsive contraction of the flexors of the foot is prevented, and in a short time reduction can be easily effected. After reduction extension should still be kept up, so as to completely relax the muscles, which will be the case in from two to three hours. The plaster and weights are then removed, and whilst the foot is still kept extended, either splints are applied or some form of stiff bandage.

Treatment of Pott's Paralysis by Suspension, &c. By S. Weir Mitchell, M.D. (*The International Journal of the Medical Sciences*, May, 1889.)—The author advocates that extension by one or other method should be used early in Pott's disease. It enables the curve to be slowly lessened. It probably acts more or less directly on the cord itself, and that the gain is not explicable merely by obvious effects on the angular bony curve.

The author makes use in many cases of a cross-bar placed over a bed or a chair, and from this suspends the patient. A good plan for the chair suspension is to use a low seat on which are placed a dozen or less of thin one-eighth or one-quarter inch pieces of board. By removing one of these from time to time systematic extension is obtained. "I have been accustomed," the author writes, "especially in the young or in young adults, to make at first a strong pull on the spine by suspension, and to leave the patient's sensations to govern the amount endurable. . . . As it has become interesting to know how much pull on the bent spine is well borne, I have lately put a steel spring balance in the suspension apparatus with these results as to endurance. Many of these diseased people bear the pull of 20 to 70 lbs. for four to six hours a day. The pain, the sense of pain, the fatigue, are good guides for us. A great variety of suspensory means may be used according to the site of the trouble, but it is so far clear to me that suspension by the head, partial or complete, aided or unaided, should be employed in every case where palsy is one of the results of the caries."

Prolapse of the Urethral Mucous Membrane in a Female Child. By Morand and Richard (*France Méd.*, 1888, No. 129).—The girl presenting this condition was ten years old; she had had the "tumour" of the genitals as long as could be remembered. When the parts were examined a swelling was observed about three-quarters of an inch in length of a "raspberry" colour, of soft consistence, and bleeding easily on being touched. At the point of the swelling, a small opening was seen, through which a sound passed easily and deeply into the urethral canal. The urine was seen to pass in a fine stream out of this orifice. The patient's troubles consisted in painful micturition, frequent shiverings, loss of blood, and leucorrhœal discharge. The treatment consisted in ligaturing the prolapse in two parts, and allowing each part to separate of itself.—(*Centralbl. für Chirurg.*, 30th March, 1889, No. 13.)

Early Staphylorrhaphy. By Dr. Julius Wolff (*Archiv. für Klin. Chirurg.*, b. xxxviii, 1888).—A severe case of cleft palate and harelip, successfully treated by the author, was brought before members of the German Surgical Congress at its meeting in Berlin last year. The case was one where the opening in the upper lip was very wide, the edges being fully half an inch apart from each other; the alveolar process, as well as the velum and uvula, were completely divided. Two days after the birth of the child, Wolff operated upon the harelip, and a little later transplanted the left wing of the nose, which had been drawn to one side by the harelip, to its natural position. This gave both nostrils a normal appearance. When the child was five months old, the uranoplastic operation and staphylorrhaphy were performed. The wounds healed well and by first intention. Complete recovery soon followed.

Wolff argues that the mortality attending operations of cleft palate in young children would be considerably lessened if the operations were performed when the child was a few months old; if greater care were taken to avoid even the slightest hæmorrhage; and if the operations were done in successive stages, performing one portion of it on one day, and waiting from five to eight days before performing the next. The child in question had had no less than six operations. During the entire treatment there was no fever, nor any loss of appetite. In conclusion, Wolff says that in operating by this gradual method, the probabilities of healing by first intention are greatly increased.—(*The International Journal of Medical Sciences*, May, 1889.)

DISEASES OF THE SKIN.

By DR. A. NAPIER.

Kidney Lesions in Leprosy.—Dr. Beaven Rake, an acknowledged authority on leprosy, discusses, in the *British Journal of Dermatology* for May, 1889, the question of the relation of kidney lesions to the skin changes in that disease, basing his remarks chiefly on a series of 78 autopsies on lepers in the Trinidad Asylum, in whom 23 (i. e., 29.4 per cent) showed some form of nephritis. The question whether the kidney inflammation is set up by specific leprous deposit, he is inclined to settle in the negative: in the kidneys of 49 different lepers he found the bacillus lepræ only twice. This seems to tend to exonerate, in the majority of cases at anyrate, the bacillus lepræ from being a direct cause of the kidney lesions. Dr. Rake finds also that the mean average duration of the leprosy, calculated on the 18 cases of kidney disease in which the duration of the skin affection is known, comes to 12 years and 8 months. Now, the mean duration of all forms of leprosy, calculated from the Trinidad Asylum records, is 8½ years. It would seem, therefore, that the cases of kidney lesion run a more chronic course than the other results or complications of leprosy. He notes another point also: the much longer duration of life in cases of kidney disease associated with anæsthetic leprosy.

Erythema After Internal Use of Turpentine.—Dr. E. Feiber (*British Journal of Dermatology*, May, 1889).—In discussing this case Dr. Feiber states that erythema after the internal use of turpentine is very rare. It is probably a reflex phenomenon, caused by irritation in the alimentary canal. In this case the turpentine was prescribed twice, and on both occasions caused eruption, on the first a pure papular erythema, and on the second a mixed form of cedematous and papular erythema.

An Undescribed Form of Alopecia.—In a letter by Mr. Louis Wickham, from L'Hôpital St. Louis, Paris, there is mentioned a new form of alopecia described by M. Besnier. It occurred in the head, forming a bald

patch surrounded by a narrow zone of acne pustules. The patch presented a cicatricial surface with slight keloid processes. According to M. Besnier it is not parasitic, but an acne lesion belonging to the group of acne pilaris, of destructive type, the hair follicles being destroyed and cicatricial tissue formed. It is allied to the *acné atrophique* of Bazin, and *acne varioliformis* of Hebra. There are often associated with it, at the margin of the hairy scalp, typical lesions of *acné cheloidienne*. It is incurable.—(*British Journal of Dermatology*, May, 1889.)

Chronic Urticaria Treated by Antipyrin.—M. Nitot (*Journal de Méd.*, 10th March, 1889) recognises two varieties of urticaria: one, acute or chronic, is intimately allied with joint diseases, is the result of digestive disturbances, requires dietetic treatment, and is benefited by arsenic and alkalies; the other, usually chronic or recurrent, is essentially nervous in origin, is relieved by nervine remedies, most of all by antipyrin. He relates a case of nervous urticaria, marked by periodicity, in which purgatives, alkalies, and quinine failed, but which yielded rapidly to 8-grain doses of antipyrin given daily, a few hours before the usual time of attack.—(*Practitioner*, May, 1889.)

Bromide of Potassium in Ovarian Acne.—Dr. A. Jamieson, in *Practitioner* for May, 1889, directs attention to obstinate cases of acne associated with ovarian irritation and menorrhagia. He finds that the ovarian trouble, the profuse menstruation, and the acne, disappear under the administration of bromide of potassium, and he quotes three striking cases in support of this view.

Congenital Neuropathic Papilloma.—This name is given to a peculiar skin affection having close relations with ichthyosis. It is a congenital affection, consisting of papillary elevations of the skin, sometimes pigmented, and covered with fissured and loosened epidermis. It is usually accompanied by nervous disease. It corresponds in its distribution with the course of particular cutaneous nerves, and when unilateral, ceases at the middle line of the body.

Dr. G. E. Wherry details (in *Practitioner* for May, 1889), a case occurring in a girl of 15, in which the intense itching and irritation had only been partially and temporarily allayed by salicylic acid, mild caustics, and carbolic acid. The eruption was dull-red, rough, and warty-looking, intensely itchy, and consisted of little papules—no vesicles or evidence of lymphangiectasia. *Distribution*: back of right wrist and upper part of metacarpus, in the domain of the external branch of the radial nerve; right side of hypogastrium, about external abdominal ring and right labium majus, and adjacent part of mons veneris; on right thigh a streak of clustered papules, from groin to upper and inner surface of leg: above, corresponding and limited to the course of cutaneous branch of ilio-inguinal nerve, below, to the branches of the internal cutaneous nerve. An excised portion of skin contained small papillomata with thickened epidermis; no cellular infiltration of cutis, no obvious affection of nerve branches. The eruption was congenital, itched intensely, and rendered patient quite unable to follow any occupation. No sign of nervous disease; no neurotic history. For the wrist the radial branch of the musculo-spiral nerve, at its point of emergence from beneath the supinator longus muscle, was divided and its ends left laterally displaced. The result here, six months later, was satisfactory; eruption had practically disappeared, and itching gone. On the abdomen and thigh the papules were destroyed with *potassa fusa*, under chloroform; here the result was disappointing, as six months later there remained two small sores, while the cicatrised parts itched as much as ever.

Pemphigus of Skin and Mucous Membranes, &c.—A case of this rare disease, in which the pemphigus involves skin and mucous membranes, and is associated with "essential shrinking" of the conjunctiva, is

detailed by Mr. Malcolm Morris and Mr. H. Leslie Roberts, in *British Journal of Dermatology* for April, 1889. A résumé of the literature of the subject is given, including a tabular view of the 28 known recorded cases. Of these cases 16 began on skin as pemphigus vulgaris, or pemphigus foliaceus, 4 on mucous membranes, 8 on the eye. One eye is usually affected before the other. The vesicles are followed by shrinking of the conjunctiva of the lids and globe, and this by entropion, the cornea soon becoming clouded, and the sclerotic thickened, and ultimately dry. Vision is gradually lost; perforation of cornea, prolapse of iris, and total destruction of globe may occur. In spite of treatment, operative and palliative, shrinking goes on. The pathology of the disease is obscure; we have records of only one *post-mortem* examination and three microscopical examinations, and these were not uniform in their results. Clinically, there are two views regarding the nature of the affection: one that the shrinking is an essential shrinking, that is, an atrophy not preceded by a hypertrophy; the other, that it is due to the formation of the vesicles and bullæ.

Treatment of Tinea Tonsurans.—Dr. A. J. Harrison (*Brit. Med. Journal*, 2nd March, 1889), returns to the subject of the treatment of ringworm. He uses an alkali to soften the hair (a keratin tube), and finds that this opens the way for the parasiticide. He now combines alkali and parasiticide in one ointment:—

Rx.—Potassæ causticæ,		gr. ix.
Acidi carbolic,		gr. xxiv.
Lanolini,		
Ol. cocœ,		āā 3 ss.
		M. et ft. ungt.

He does not shave the hair, but prefers to have it about a quarter of an inch long. He finds that this cures the disease in one to three months. The scalps of children not affected with the disease, but exposed to infection, should be smeared with some parasiticide ointment, as:—

Rx.—Ungt. boracis,			
Ungt. eucalypti,		āā 3ii.	
Ol. caryophylli,		3ss.	
Ol. cocœ,		ad. 3vi.	
		M. et ft. ungt.	

OPHTHALMOLOGY.

By FREELAND FERGUS, M.B.

Lectures on Glaucoma. By Dr. Priestley Smith.—We would call very special attention to Dr. Priestley Smith's lectures on glaucoma, published in the *British Medical Journal*. To those who are familiar with the views expressed in his book, published some years ago, there is perhaps nothing very new, but none the less are these lectures worthy of the most careful perusal. We do not intend giving any detailed account of his opinions, for the lectures themselves may easily be consulted by any of our readers who are interested in the matter. We venture to say, however, that the author seems to have made one of the most important contributions to eye pathology which has been made by any British surgeon for a very long time. The blocking of the space of Fantana, to Priestley Smith's mind, explains the large majority of such cases, and he agrees with the old opinion that glaucoma is not an inflammatory affection.

His observations on the influence of the circumlental space in the production of glaucoma are of the greatest interest. When that space is of small size,

as age advances it is apt to be obliterated. The lens is then pushed forward, and the space of Fantana is closed. He further points out that persons suffering from glaucoma have usually small cornea.

As to treatment, he gives forth no uncertain sound. A large and well-formed iridectomy is the only safe method, and one which is practicable in most cases. There are no drugs which he finds of much permanent service. Eserine is sometimes a good palliative, but ought not to be trusted too much. He does not even hint at a prolonged course of sedatives as being worthy of a trial.

It is interesting to find that atropine sometimes lessens a glaucomatous attack by diminishing irritation, thus lessening the vascularity of the ciliary body and thus increasing the size of the circumlental space. Still atropine is a drug which can only be used with the greatest caution, as in most cases of glaucoma it does harm.

Cases from the Ophthalmological Clinique at Liège.—The last number of the *Annales d'Oculistique* contains some important communications from the clinique at Liège. The first to which we would call attention is on two cases of amblyopia due to bisulphide of carbon poisoning. Both the patients were engaged in the manufacture of caoutchouc. This form of amblyopia may be distinguished from the alcoholic by the following symptoms:—(a) In both there is a colour scotoma, but the scotoma in the alcoholic form is much greater than in the other. (b) In the bisulphide poisoning the limits of the field of vision are not contracted. (c) The visual acuteness is reduced in the periphery much more than it is in alcoholic poisoning. In this latter form the dimness of vision rather depends on the central scotoma, the external parts of the field retaining nearly the normal visual acuteness. Bisulphide poisoning greatly reduces the V.A. for the entire field, although it causes only a very small central scotoma for colour. The violet, red, and green are lost in alcoholic amblyopia nearly for the entire field. The authors, Drs. Nuel and Leplat, state that their patients recovered perfectly under the influence of tonics. They are of opinion that the hypodermic injection of pilocarpine, a most valuable remedy in alcoholic and nicotine amblyopia, is of little use in these cases.

In this communication there is also a contribution on the distribution of the retinal vessels in myopia, and one on traumatic cerebral amaurosis and amblyopia, which do not seem to require any very special notice.

A curious case is also described of a subconjunctival cystic tumour which the authors thought was the enlarged bursa of the internal rectus muscle.

The last article to which we would call attention is on the practical utility of the Javal and Schiötz ophthalmometer in measuring astigmatism. Those who have worked with the instrument do not need to be told of its advantages. Still it is an instrument rarely seen in British ophthalmic clinics.

In this number of the *Annales* Charles Abadie and De Wecker again insist on the necessity of antiseptic precautions in ophthalmic surgery.

Epilepsy and Errors of Ocular Refraction.—In the last number of *Brain* Dr. Wigglesworth and Mr. Bickerton contribute a paper on "a connection between epilepsy and errors of ocular refraction." These gentlemen found that such errors were proportionately much more common in epileptics than in other asylum patients. They therefore believe that they have here the exciting cause of a certain number of cases of epilepsy. Certain of their patients seem to have been entirely cured by the use of suitable glasses, and in one case the fits returned as soon as the glasses were discontinued. This reminds us that Stevens, of New York, some two or three years ago, made some very careful observations on the relative strengths of the recti muscles in the same class of patients. He was able to cure many of his patients by simple tenotomy. There is no more frequent cause of severe frontal headache than muscular or accommodative asthenopia.

EPIDEMIOLOGY.

By A. K. CHALMERS, M.D.

Infectious (?) Broncho-Pneumonia in Measles.—Dr. Bard relates the story of a severe epidemic of measles in a village in the south of France, and traces in the official report of the medical officer some evidence that all, or nearly all, the fatal cases arose by infection from a single case, in which there was not only measles but also broncho-pneumonia. He is inclined to separate the infections of measles and broncho-pneumonia, and merely to admit that a state of measles renders a child much more liable to a separate infection of broncho-pneumonia. At any rate he is anxious to act on this hypothesis in isolation, and to keep apart two classes of cases of measles—viz., those who have and those who have not what is generally termed the subsequent bronchitis. He points to some very high death-rates in measles, such as 42 per cent during the years 1867-72, and even 60 per cent, in 1871, in the Hôpital des Enfants Assistés at Paris, where all cases are put together. How far such startling figures may be due to want of ventilation and nutrition he has no means of determining; but he advises not only ventilation, but separation of the broncho-pneumonic cases so long as they are suffering in this way.—(*Lyon Medical*, 13th January, 1889; *Practitioner*, March, 1889.)

Pasteurism.—The prevalent notion of Pasteurism is that it is an imitation of vaccination—an artificial induction of a mild attack of rabies by means of an "attenuated virus," with a view to protect the system against the more severe and serious effects of the natural and virulent poison as derived by inoculation from the bite of rabid animals. Professor Horseley, in a paper recently read before the Epidemiological Society, presents a very different view of the principle underlying Pasteur's proceedings. It has been shown by Dr. Wooldbridge, with reference to the poison of anthrax, that the waste products of the metabolic processes of the bacilli of that disease possess the power of inhibiting their development and multiplication. The object of Pasteur's operation is to subject portions of the central nervous system known to contain rabic poison to such influences (heat and drying) as will destroy the microbes, and not the chemical product, which is the result of the metabolic processes, which they undergo in the tissues. This chemical product is then injected into the body of persons who have been bitten by rabid animals, in such quantity and with such frequency as to inhibit the development of the microbes. In the "extensive treatment" a stronger material is employed than in the simple treatment, and more frequently. Professor Horseley states that "It is clear that M. Pasteur has succeeded in diminishing the percentage of risk in being bitten by a rabid dog from 13 to 1·36 per cent, and that this result is obtained by injecting a chemical protective substance."

Proceeding on similar lines, Loewenthal has, as a result of an elaborate series of experiments, arrived at the conclusion that the poison of cholera is a ptomaine elaborated by the comma bacillus of Koch from albuminoid and peptonised substances in presence of the pancreatic juice. He found that cultivation of these bacilli in sterilised peptonised broth was inoffensive to white mice, whereas cultivation in a pancreatised broth or albuminous paste determined the production of a material which killed them or made them intensely sick. He found experimentally that salol rendered this product innocuous, and he proposes this drug as an antidote to the cholera poison. It is therefore apparent that certain states of the digestive system and of digestion are necessary for the generation and evolution of the cholera bacillus in man, and that if these conditions are not present, the comma bacilli which are presumed to be concerned in the manufacture of the virus fail to produce it. Certain observations of Dr. D. D. Cunningham seem to indicate that the development of these bacilli outside of the body also depends on favouring conditions. He conducted a series of "experiments on the behaviour of the

choleraic comma bacilli on soil and water of various qualities, and he shows that under ordinary circumstances even in an endemic locality, such as Calcutta, there is very little probability of their multiplying to any great extent or persisting for any prolonged period in soil or water to which they may gain access. It further appears that this is due to their incapacity to hold their own in the struggle for existence to which they are exposed with the schizomycetes and other organisms normally present in the media, as when the latter are sterilised, the persistence and multiplication of commas occurs just as it would do in any artificially sterilised medium of suitable quality." . . . "They must, therefore, be regarded as holding a very secondary place in the causation of epidemic diffusion of the disease, and that it is peculiarities in conditions of locality which must be regarded as of primary importance, seeing that without these the bacilli would neither be able to establish themselves in sufficient numbers and with sufficient persistence, nor be able, even could they do so, to affect the population in epidemic proportions."—(*Indian Medical Gazette*, March, 1889.)

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